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29 CFR Parts 1904 and 1952

Occupational Injury and Illness Recording and Reporting Requirements; Final Rule

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Parts 1904 and 1952

[Docket No. R–02]

RIN 1218–AB24

Occupational Injury and Illness Recording and Reporting Requirements

AGENCY: Occupational Safety and Health Administration (OSHA), U.S. Department of Labor.

ACTION: Final rule.

SUMMARY: The Occupational Safety and Health Administration (OSHA) is revising its rule addressing the recording and reporting of occupational injuries and illnesses (29 CFR parts 1904 and 1952), including the forms employers use to record those injuries and illnesses. The revisions to the final rule will produce more useful injury and illness records, collect better information about the incidence of occupational injuries and illnesses on a national basis, promote improved employee awareness and involvement in the recording and reporting of job-related injuries and illnesses, simplify the injury and illness recordkeeping system for employers, and permit increased use of computers and telecommunications technology for OSHA recordkeeping purposes.

This rulemaking completes a larger overall effort to revise Part 1904 of Title 29 of the Code of Federal Regulations. Two sections of Part 1904 have already been revised in earlier rulemakings. A rule titled Reporting fatalities and multiple hospitalization incidents to OSHA, became effective May 2, 1994 and has been incorporated into this final rule as § 1904.39. A second rule entitled Annual OSHA injury and illness survey of ten or more employers became effective on March 13, 1997 and has been incorporated into this final rule as § 1904.41.

The final rule being published today also revises 29 CFR 1952.4, Injury and Illness Recording and Reporting Requirements, which prescribes the recordkeeping and reporting requirements for States that have an occupational safety and health program approved by OSHA under § 18 of the Occupational Safety and Health Act (the ''Act'' or ''OSH Act'').

DATES: This final rule becomes effective January 1, 2002.

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II. The Occupational Safety and Health Act and the Functions of the Recordkeeping System

Statutory Background

The Occupational Safety and Health Act (the ''OSH Act'' or ''Act'') requires the Secretary of Labor to adopt regulations pertaining to two areas of recordkeeping. First, section 8(c)(2) of the Act requires the Secretary to issue regulations requiring employers to ''maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.'' Section 8(c)(1) of the Act also authorizes the Secretary of Labor to develop regulations requiring employers to keep and maintain records regarding the causes and prevention of occupational injuries and illnesses. Section (2)(b)(12) of the Act states Congress' findings with regard to achieving the goals of the Act and specifically notes that appropriate reporting procedures will help achieve the objectives of the Act.

Second, section 24(a) of the Act requires the Secretary to develop and maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics. This section also directs the Secretary to ''compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries and illnesses, whether or not involving loss of time from work, other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.''

After passage of the Act, OSHA issued the required occupational injury and illness recording and reporting regulations as 29 CFR part 1904. Since 1971, OSHA and the Bureau of Labor Statistics (BLS) have operated the injury and illness recordkeeping system as a cooperative effort. Under a Memorandum of Understanding dated July 11, 1990 (Ex. 6), BLS is now responsible for conducting the nationwide statistical compilation of occupational illnesses and injuries (called the Annual Survey of Occupational Injuries and Illnesses), while OSHA administers the regulatory components of the recordkeeping system.

Functions of the Recordkeeping System

This revision of the Agency's recordkeeping rule is firmly rooted in the statutory requirements of the OSH Act (see the Legal Authority section of the preamble, below). OSHA's reasons for revising this regulation to better achieve the goals of the Act are discussed in the following paragraphs.

Occupational injury and illness records have several distinct functions or uses. One use is to provide information to employers whose employees are being injured or made ill by hazards in their workplace. The information in OSHA records makes employers more aware of the kinds of injuries and illnesses occurring in the workplace and the hazards that cause or contribute to them. When employers analyze and review the information in their records, they can identify and

correct hazardous workplace conditions on their own. Injury and illness records are also an essential tool to help employers manage their company safety and health programs effectively.

Employees who have information about the occupational injuries and illnesses occurring in their workplace are also better informed about the hazards they face. They are therefore more likely to follow safe work practices and to report workplace hazards to their employers. When employees are aware of workplace hazards and participate in the identification and control of those hazards, the overall level of safety and health in the workplace improves.

The records required by the recordkeeping rule are also an important source of information for OSHA. During the initial stages of an inspection, an OSHA representative reviews the injury and illness data for the establishment as an aid to focusing the inspection effort on the safety and health hazards suggested by the injury and illness records. OSHA also uses establishment-specific injury and illness information to help target its intervention efforts on the most dangerous worksites and the worst safety and health hazards. Injury and illness statistics help OSHA identify the scope of occupational safety and health problems and decide whether regulatory intervention, compliance assistance, or other measures are warranted.

Finally, the injury and illness records required by the OSHA recordkeeping rule are the source of the BLS-generated national statistics on workplace injuries and illnesses, as well as on the source, nature, and type of these injuries and illnesses. To obtain the data to develop national statistics, the BLS and participating State agencies conduct an annual survey of employers in almost all sectors of private industry. The BLS makes the aggregate survey results available both for research purposes and for public information. The BLS has published occupational safety and health statistics since 1971. These statistics chart the magnitude and nature of the occupational injury and illness problem across the country. Congress, OSHA, and safety and health policy makers in Federal, State and local governments use the BLS statistics to make decisions concerning safety and health legislation, programs, and standards. Employers and employees use them to compare their own injury and illness experience with the performance of other establishments within their industry and in other industries.

III. Overview of the Former OSHA Recordkeeping System

The OSH Act authorizes OSHA to require employers to keep records and to report the recorded information to OSHA. However, the Agency only requires some employers to create and maintain occupational injury and illness records. Those employers who are required to keep records must report on those records only when the government specifically asks for the information, which occurs exclusively under limited circumstances that are described below.

Employers covered by the recordkeeping regulations must keep records of the occupational injuries and illnesses that occur among their employees. To do so, covered employers must complete two forms. First, the employer must maintain a summary form (OSHA Form 200, commonly referred to as the ''OSHA Log,'' or an equivalent form) that lists each injury and illness that occurred in each establishment during the year. For each case on the Log, the employer also prepares a supplementary record (OSHA Form 101, or an equivalent), that provides additional details about the injury or illness. Most employers use a workers' compensation First Report of Injury in place of the 101 form. The Log is available to employees, former employees, and their representatives. A Summary of the Log is posted in the workplace from February 1 to March 1 of the year following the year to which the records pertain. The Log and summary, as well as the more detailed supplementary record, are available to OSHA inspectors who visit the establishment.

The employer is only obligated to record work-related injuries and illnesses that meet one or more of certain recording criteria. In accordance with the OSH Act, OSHA does not require employers to record cases that only involve ''minor'' injuries or illnesses, *i.e.,* do not involve death, loss of consciousness, days away from work, restriction of work or motion, transfer to another job, medical treatment other than first aid, or diagnosis of a significant injury or illness by a physician or other licensed health care professional.

The language of the OSH Act also limits the recording requirements to injuries or illnesses that are ''work-related.'' The Act uses, but does not define, this term. OSHA has interpreted the Act to mean that injuries and illnesses are work-related if events or exposures at work either caused or contributed to the problem. Work-related injuries or illnesses may (1) occur at the employer's premises, or (2) occur off the employer's premises when the employee was engaged in a work activity or was present as a condition of employment. Certain limited exceptions to this overriding geographic presumption were permitted by the former rule.

Although the Act gives OSHA the authority to require all employers covered by the OSH Act to keep records, two major classes of employers are not currently required regularly to keep records of the injuries and illnesses of their employees: employers with no more than 10 employees at any time during the previous calendar year, and employers in certain industries in the retail and service sectors.

Although the Act authorizes OSHA to require employers to submit reports on any or all injuries and illnesses occurring to their employees, there are currently only three situations where OSHA requires an employer to report occupational injury and illness records to the government. First, an employer must report to OSHA within eight hours any case involving a work-related fatality or the in-patient hospitalization of three or more employees as the result of a work-related incident (former 29 CFR 1904.8, final rule 1904.39). These provisions were revised in 1994 to reduce the reporting time for these incidents from 48 hours to 8 hours and reduce the number of hospitalized employees triggering a report from five workers to three workers (59 FR 15594 (April 1, 1994)). Changes made to this section in 1994 have largely been carried forward in the final rule being published today.

Second, an employer who receives an annual survey form from the Bureau of Labor Statistics must submit its annual injury and illness data to the BLS. The BLS conducts an annual survey of occupational injuries and illnesses under 29 CFR 1904.20–22 of the former rule (1904.41 of the final rule). Using a stratified sample, the BLS sends survey forms to randomly selected employers, including employers who, under Part 1904, would otherwise be exempt from the duty to keep the OSHA Log and Summary. These otherwise exempt employers are required to keep an annual record of the injuries and illnesses occurring among their employees that are recordable under Part 1904 if the BLS contacts them as part of the annual survey. At the end of the year, these employers must send the results of recordkeeping to the BLS. The BLS then tabulates the data and uses them to prepare national statistics on occupational injuries and illnesses. The

BLS survey thus ensures that the injury and illness experience of employers otherwise exempted from the requirement to keep OSHA records—such as employers with 10 or fewer employees in the previous year and employers in certain Standard Industrial Classification (SIC) codes—is reflected in the national statistics. In accordance with its statistical confidentiality policy, the BLS does not make public the identities of individual employers.

Finally, OSHA may require employers to send occupational injury and illness data directly to OSHA under a regulation issued in 1997. That section of this regulation is entitled Annual OSHA Injury and Illness Survey of Ten or More Employers. It allows OSHA or the National Institute for Occupational Safety and Health (NIOSH) to collect data directly from employers. This section was published in the **Federal Register** on February 11, 1997 (62 FR 6434) and became effective on March 13, 1997. It has been included in this final rule as section 1904.41 without substantive change; however, this section has been rewritten in plain language for consistency with the remainder of Part 1904.

IV. OSHA's Reasons for Revising the Recordkeeping Rule

OSHA had several interrelated reasons for revising its recordkeeping rule. The overarching goal of this rulemaking has been to improve the quality of workplace injury and illness records. The records have several important purposes, and higher quality records will better serve those purposes. OSHA also believes that an improved recordkeeping system will raise employer awareness of workplace hazards and help employers and employees use and analyze these records more effectively. In revising its recordkeeping rule, the Agency also hopes to reduce underreporting and to remove obstacles to complete and accurate reporting by employers and employees.

A major goal of the revision has been to make the system simpler and easier to use and understand and to update the data on which the system is based. For example, OSHA has updated the list of partially exempt industries to reflect the most recent data available. The revisions to the final rule will also create more consistent statistics from employer to employer. Further, by providing more details about the system in the regulation itself and writing the rule in plain language, fewer unintentional errors will be made and the records will be more consistent. More consistent records will improve the quality of analyses comparing the injury and illness experience of establishments and companies with industry and national averages and of analyses looking for trends over several years.

Another objective of the rulemaking has been to lessen the recordkeeping burden on employers, reduce unnecessary paperwork, and enhance the cost-effectiveness of the rule. The final rule achieves this objective in several ways. It updates the partially exempt industry list, reduces the requirement to keep track of lengthy employee absences and work restrictions caused by work-related injuries and illnesses and, above all, greatly simplifies the forms, regulatory requirements, and instructions to make the system easier for employers and employees to manage and use.

In this rulemaking, OSHA has also addressed some of the objections employers have raised in the years since OSHA first implemented the injury and illness recordkeeping system. For example, the final rule includes a number of changes that will allow employers to exclude certain cases, eliminate the recording of minor illness cases, and allow employers maximum flexibility to use computer equipment to meet their OSHA recordkeeping obligations.

OSHA is also complying with the President's Executive Memorandum on plain language (issued June 1, 1998) by writing the rule's requirements in plain language and using the question-and-answer format to speak directly to the user. OSHA believes that employers, employees and others who compile and maintain OSHA records will find that the plain language of the final rule helps compliance and understanding.

Many of OSHA's goals and objectives in developing this final rule work together and reinforce each other. For example, writing the regulation in plain language makes the rule easier for employers and employees to use and improves the quality of the records by reducing the number of errors caused by ambiguity. In some cases, however, one objective had to be balanced against another. For example, the enhanced certification requirements in the final rule will improve the quality of the records, but they also slightly increase employer burden. Nevertheless, OSHA is confident that the final rule generally achieves the Agency's goals and objectives for this rulemaking and will result in a substantially strengthened and simplified recordkeeping and reporting system.

The Need To Improve the Quality of the Records

The quality of the records OSHA requires employers to keep is of crucial importance for anyone who uses the resulting data. Problems with completeness, accuracy, or consistency can compromise the data and reduce the quality of the decisions made on the basis of those data. Several government studies, as well as OSHA's own enforcement history, have revealed problems with employers' injury and illness recordkeeping practices and with the validity of the data based on those records.

A study conducted by the National Institute for Occupational Safety and Health (NIOSH) between 1981 and 1983 revealed that 25 percent of the 4,185 employers surveyed did not keep OSHA injury and illness records at all, although they were required by regulation to do so (Ex. 15:407–P).

A study of 192 employers in Massachusetts and Missouri conducted by the BLS in 1987 reported that an estimated 10 percent of covered employers did not maintain OSHA records at all, total injuries were underrecorded by approximately 10 percent (even though both overrecording and underrecording were discovered), lost workday injuries were undercounted by 25 percent, and lost workdays were undercounted by nearly 25 percent. Approximately half of the uncounted lost workdays were days of restricted work activity, and the other half were days away from work. Some of the underrecording was due to employers entering lost time cases on their records as no-lost-time cases (Exs. 72–1, 72–2).

Through its inspections of workplaces, OSHA has also discovered that some employers seriously underrecord injuries and illnesses. In cases where the inspector has found evidence that the employer willfully understated the establishment's injury and illness experience, OSHA has levied large penalties and fines under its special citation policy for egregious violations. OSHA has issued 48 egregious injury and illness recordkeeping citations since 1986 (Ex. 74).

As part of the OSHA Data Initiative (ODI), a survey allowing OSHA to collect injury and illness data from employers to direct OSHA's program activities, the Agency conducts Part 1904 records audits of 250 establishments each year. The following table shows the results of the audits conducted to date.

1996 THROUGH 1998 OSHA RECORDKEEPING AUDIT RESULTS *

Error type	Data reference year (percent)		
	1996	1997	1998
Cases not entered on employers Log	13.56	10.49	12.91
Lost workday cases recorded as non-lost workday cases	8.39	6.53	6.21
Non-lost workday cases recorded as lost workday cases	(**)	2.10	1.94
Total major recording errors	21.95	19.11	21.07
Total cases recorded without major errors	78.05	80.89	78.93

* The results were tabulated using unweighted data and should not be used to draw broad conclusions about the recordkeeping universe.
** Data not calculated for 1996.
Source: OSHA Data Initiative Collection Quality Control: Analysis of Audits on 1996–1998 Employer Injury and Illness Recordkeeping.

Explicit Rules Are Needed To Ensure Consistent Recording

When OSHA's recordkeeping regulation was first promulgated in 1971, many industry safety experts were concerned that the regulations and the instructions on the forms did not provide adequate guidance for employers. They requested that the Department of Labor provide additional instructions on employers' recordkeeping obligations and clarify several recordkeeping issues. The BLS responded in 1972 by publishing supplemental instructions to the recordkeeping forms, BLS Report 412, What Every Employer Needs To Know About OSHA Recordkeeping (Ex. 1). These supplemental instructions were designed to help employers by providing detailed information on when and how to record injury and illness cases on the recordkeeping forms. The supplemental instructions clarified numerous aspects of the rule, including the important recordability criteria that outline which injuries and illnesses are work-related and thus recordable. This BLS Report was revised and reissued in 1973, 1975, and 1978.

In response to requests from labor and industry, and after publication in the **Federal Register** and a public comment period, the BLS 412 report series was replaced in April of 1986 by the *Recordkeeping Guidelines For Occupational Injuries And Illnesses* (the *Guidelines*) (Ex. 2). The *Guidelines* contained an expanded question-and-answer format similar to that of the BLS 412 report and provided additional information on the legal basis for the requirements for recordkeeping under Part 1904. The *Guidelines* provided clearer definitions of the types of cases to be recorded and discussed employer recordkeeping obligations in greater detail. The *Guidelines* also introduced a number of exceptions to the general geographic presumption that injuries and illnesses that occurred ''on-premises'' were work-related to cover situations where the application of the geographic presumption was considered inappropriate. Further, the *Guidelines* updated the lists that distinguished medical treatment from first aid and addressed new recordkeeping issues. The BLS also published a shortened version of the *Guidelines,* entitled A Brief Guide to Recordkeeping Requirements for Occupational Injuries and Illnesses (Ex. 7).

Although the 1986 edition of the *Guidelines* clarified many aspects of the recordkeeping regulation, concerns persisted about the quality and utility of the injury and illness data. In response to inquiries from employers, unions, employees, BLS, and OSHA staff, the Agency issued many letters of interpretation. These letters restated the former rule's regulatory requirements, interpreted the rules as they applied to specific injury and illness cases, and clarified the application of those requirements. A number of these letters of interpretation have been compiled and entered into the docket of this rulemaking (Ex. 70). OSHA has incorporated many of the prior interpretations directly into the implementation questions and answers in the regulatory text of the final rule, so that all affected employers will be aware of these provisions.

External Critiques of the Former Recordkeeping System

Because of concern about the injury and illness records and the statistics derived from them, several organizations outside OSHA have studied the recordkeeping system. The National Research Council (NRC), the Keystone Center, and the General Accounting Office (GAO) each published reports that evaluated the recordkeeping system and made recommendations for improvements. OSHA has relied on these studies extensively in developing this final rule.

The NRC Report

In response to concern over the underreporting of occupational injuries and illnesses and inconsistencies in the national data collected by the BLS, Congress appropriated funds in 1984 for the BLS to conduct a quality assurance study of its Annual Survey of Occupational Injuries and Illnesses. The BLS asked the National Research Council (NRC) to convene an expert panel to analyze the validity of employer records and the BLS annual survey, to address any problems related to determining and reporting occupational diseases, and to consider other issues related to the collection and use of data on health and safety in the workplace.

In 1987, NRC issued its report, Counting Injuries and Illnesses in the Workplace: Proposals for a Better System (Ex. 4). The report contained 24 specific recommendations (Ex. 4, Ch. 8). In sum, the NRC panel recommended that BLS take the following steps to improve the recordkeeping system: (1) Modify the BLS Annual Survey to provide more information about the injuries and illnesses recorded; (2) discontinue the Supplementary Data System, replace it with a grant program for States and individual researchers, and develop criteria for the detail and quality of the data collected by the replacement system; (3) conduct an ongoing quality assurance program for the Annual Survey to identify underreporting by comparing the information on employers' logs with data from independent sources; (4) implement a system of surveillance for occupational disease, including the collection of data on exposure to workplace hazards; (5) improve the collection of national occupational fatality data; (6) implement an administrative data system that would allow OSHA to obtain individual establishment data to conduct an ''effective program for the prevention of

workplace injuries and illnesses * * *''; and (7) thoroughly evaluate recordkeeping practices in individual establishments, using additional resources requested from Congress for that purpose to avoid diverting resources from OSHA inspections of workplace hazards (Ex. 4, p. 10).

The Keystone Report

In 1987, The Keystone Center convened 46 representatives from labor unions, corporations, the health professions, government agencies, Congressional staff, and academia for a year-long dialogue to discuss occupational injury and illness recordkeeping. Two years later, Keystone issued its final report, Keystone National Policy Dialogue on Work-related Illness and Injury Recordkeeping, 1989 (Ex. 5). The report focused on four major topics: (1) Recordkeeping criteria; (2) OSHA enforcement procedures; (3) injury and illness data systems; and (4) occupational illnesses. The Keystone report recommended that: (1) OSHA and the BLS should revise various aspects of the recording criteria; (2) OSHA should use injury and illness data to target enforcement efforts; (3) the BLS should revise the *Guidelines* to make them easily and uniformly understood; (4) the BLS should develop a national system to collect and disseminate occupational injury and illness information; and (5) OSHA and the BLS should broaden the type of information collected concerning occupational illness and make the information available to employees and government agencies for appropriate purposes such as research and study.

The General Accounting Office (GAO) Study

An August 1990 report by the GAO, Options for Improving Safety and Health in the Workplace (Ex. 3), discussed the importance of employer injury and illness records. The GAO noted that these records have several major uses. They help employers, employees and others understand the nature and extent of occupational safety and health problems. They help employers and employees identify safety and health problems in their workplaces so that they can correct the problems. They also enable OSHA to conduct research, evaluate programs, allocate resources, and set and enforce standards. The report focused on the use of the records in OSHA enforcement, particularly in targeting industries and worksites for inspections and determining the scope of inspections.

The GAO report found that there was ''possibly significant injury and illness underrecording and subsequent underreporting'' (Ex. 3, p. 3). The GAO report gave three main reasons for inaccurate recording and reporting: (1) Employers intentionally underrecord injuries and illnesses in response to OSHA inspection policies or management safety competitions; (2) employers unintentionally underrecord injuries and illnesses because they do not understand the recording and reporting system; and (3) employers record injuries and illnesses inaccurately because they do not place a high priority on recordkeeping and do not supervise their recordkeepers properly. The GAO report noted that OSHA's revised enforcement procedures, which included increasing its fines for recordkeeping violations and modifying its records-review procedures, would likely help to improve the accuracy of recordkeeping. The GAO recommended that the Department of Labor study the accuracy of employers' records using independent data sources, evaluate how well employers understand the revised *Guidelines,* and audit employers' records in selected enforcement activities.

OSHA's Strategy for Improving the Quality of Records

OSHA has developed a four-part strategy to improve the quality of the injury and illness records maintained by employers. The first component is to provide information, outreach and training to employers to make them more aware of the recordkeeping requirements, thereby improving their compliance with these requirements. For example, information on injury and illness recordkeeping is included in many of OSHA's publications and pamphlets, on the OSHA CD–ROM, and on OSHA's Internet site. OSHA personnel answer thousands of recordkeeping questions each year in response to phone calls and letters. OSHA also trains employers at the OSHA Training Institute in recordkeeping procedures and provides speakers on this topic for numerous safety and health events.

The second component is improved enforcement of the recordkeeping requirements. OSHA continues to review employer records during many of its workplace inspections. OSHA also audits the records of some employers who submit data to OSHA under former section 1904.17 (recodified as section 1904.41 Requests from OSHA for Data in the final rule). Although OSHA does not issue citations for minor reporting and recording violations, the Agency does cite and fine employers when it encounters serious or willful injury and illness recordkeeping problems.

The third component of OSHA's overall plan is this revision of the injury and illness recordkeeping rule. The revised final rule will streamline the recordkeeping system by simplifying the forms and the logic used to record an individual case. It will also consolidate the instructions that were formerly contained in the rule itself, in the *Guidelines,* and in many interpretative letters and memoranda. In addition, the final rule will improve the quality of the injury and illness records by changing several requirements to ensure that data are entered correctly. OSHA has simplified and streamlined the recordkeeping forms and processes to reduce errors. Other changes include: (1) Simplifying and clarifying the definitions of terms such as ''medical treatment,'' ''first aid,'' and ''restricted work'' to reduce recording errors; (2) providing specific recordkeeping guidance for specific types of injuries and illnesses; (3) including a detailed discussion of the process of determining whether an injury or illness is work-related; (4) giving employees greater involvement by improving their access to records and providing a longer posting period for the annual summary; (5) requiring higher level management officials to certify the records; (6) adding a falsification/penalty statement to the Summary; (7) adding a disclaimer to the Log to clarify that an employer who records an injury or illness is not admitting fault, negligence or liability for workers' compensation or insurance purposes; and (8) requiring the employer to establish a process for employees to report injuries and illnesses and to tell employees about it, and explicitly prohibiting the employer from discriminating against employees who report injuries and illnesses.

V. The Present Rulemaking

In 1995, the Keystone Center reassembled a group of business, labor, and government representatives to discuss draft proposed changes to the recordkeeping rule. OSHA shared its draft proposed revision of the rule with the participants and the public. The draft was also reprinted in several national safety and health publications. Written comments generated by the on-going dialogue were used to help develop the proposal and the final rule, and they are in the rulemaking record (Ex. 12).

OSHA consulted with the Advisory Committee on Construction Safety and Health (ACCSH) before issuing the

proposed rule. ACCSH made specific recommendations to OSHA for improving the recordkeeping system as it applied to the construction industry. OSHA gave the ACCSH recommendations careful consideration and responded by modifying the proposal in several areas. The ACCSH recommendations, OSHA's written briefing, and the relevant portions of the transcripts of the October and December 1994 ACCSH meetings are also part of the public record (Ex. 10).

OSHA published a Notice of Proposed Rulemaking (NPRM) on February 2, 1996 (61 FR 23), giving formal notice that the Agency proposed to revise the injury and illness recording and reporting regulations, forms, and supplemental instructions (Ex. 14). The proposed rule reflected a number of suggestions made by the Keystone participants and ACCSH.

The NPRM invited all interested parties to submit comments on the proposal to the docket by May 2, 1996. In response to requests from members of the public, OSHA held two public meetings during the comment period and extended the comment period to July 1, 1996.

OSHA received 449 written comments in response to the NPRM and compiled 1200 pages of transcripts from 60 presentations made at the public meeting. Comments and testimony were received from a broad range of interested parties, including corporations, small business entities, trade associations, unions, state and local governments, professional associations, citizens groups, and safety and health organizations. OSHA has carefully reviewed all of the comments and testimony in its preparation of the final rule.

As described in greater detail below, the final rule revises OSHA's regulation for the recording and reporting of work-related deaths, injuries and illnesses. The rule is part of a comprehensive revision of the OSHA injury and illness recordkeeping system.

The final rule becomes effective, on January 1, 2002. At that time, the following recordkeeping actions will occur:

(1) 29 CFR Part 1904, entitled Recording and Reporting Occupational Injuries and Illnesses, will be in effect.

(2) The State plan provisions in 29 CFR Part 1952, Section 1952.4, entitled Injury and Illness Recording and Reporting Requirements will be in effect.

(3) Three new recordkeeping forms will come into use:

(A) OSHA Form 300, OSHA Injury and Illness Log, and OSHA Form 300 A Summary, which will replace the former OSHA Form 200, Log and Summary of Occupational Injuries and Illnesses; and

(B) OSHA Form 301, OSHA Injury and Illness Incident Record, which will replace the former OSHA Form 101, Supplementary Record of Occupational Injuries and Illnesses.

(4) The following BLS/OSHA publications will be withdrawn:

(A) Recordkeeping Guidelines for Occupational Injuries and Illnesses, 1986; and

(B) A Brief Guide to Recordkeeping Requirements for Occupational Injuries and Illnesses, 1986.

(5) All letters of interpretation regarding the former rule's injury and illness recordkeeping requirements will be withdrawn and removed from the OSHA CD–ROM and the OSHA Internet site.

Provisions Not Carried Forward From the Proposal

Two proposed regulatory sections in OSHA's 1996 Notice of Proposed Rulemaking (NPRM) have not been carried forward in this rulemaking. They are: (1) Falsification of, or failure to keep records or provide reports (Proposed section 1904.16), and (2) Subcontractor records for major construction projects (Proposed section 1904.17).

Paragraphs (a) and (b) of proposed section 1904.16, ''Falsification of, or failure to keep records or provide reports,'' were included in the proposal because they had been included in the former rule. The proposed section included a provision stating that employers may be subject to criminal fines under section 17(g) of the Act for falsifying injury and illness logs and may be cited and fined under sections 9, 10, and 17 of the Act for failure to comply with the recordkeeping rule. Several commenters favored retention of this proposed provision in the final rule because, in their view, OSHA needs strong enforcement of the recordkeeping rule to make sure that employers keep accurate records (see, *e.g.*, Exs. 15: 11, 289). Others, however, objected to the proposed provision (see, *e.g.*, Exs. 15: 22, 335, 375). The views of this latter group were reflected in a comment from the American Petroleum Institute (Ex. 15: 375), which urged OSHA to delete this section from the rule in its entirety because nothing like it is found in any other OSHA regulation or standard. In the final rule, OSHA has decided that this section is not needed to enforce the final rule, and when need be, to issue citations and levy penalties.

The Keystone report recommended, and OSHA proposed, to require construction employers to maintain ''site logs,'' or comprehensive injury and illness records, for major construction projects. The Keystone report noted that construction sites are normally composed of multiple contractors and subcontractors, each of whom may be present at the site for a relatively short period of time, and that no records of the safety and health experience of the site are readily available, either to OSHA or to employers and employees.

In an attempt to address this problem, the proposed provision would have required site-controlling employers in the construction industry to maintain a separate record reflecting the overall injury and illness experience of employees working for sub-contract construction firms for any construction site having an initial construction contract value exceeding $1,000,000. The site-controlling employer would thus have been required to record the injuries and illnesses of subcontractor employees who were employed by construction employers with 11 or more employees working at the site at any time during the previous calendar year.

Many commenters strongly favored the addition of a construction site log provision to the final rule (see, *e.g.*, Exs. 20; 29; 35; 36; 45; 15: 48, 110, 113, 129, 136, 137, 141, 181, 224, 266, 278, 310, 350, 359, 369, 375, 394, 407, 413, 415, 418, 425, 438, 440). Several of these commenters urged OSHA to expand this ''multi-employer'' log concept to employers in other industries (see, *e.g.*, Exs. 35; 15: 48, 113, 129, 369, 415, 418, 438). For example, the AFL–CIO (Ex. 15: 418) encouraged OSHA to ''[e]xpand this recommendation to all industries. As the Agency is well aware, safety and health problems related to multi-employer worksites and contract work are a major concern in many industries beyond construction. Many of the major chemical explosions and fatalities at steel mills, power plants and paper mills have been related to contract work. With more and more businesses contracting out services for on-site activities, the safety and health concern associated with these practices is growing.''

Other commenters argued that the proposed site log provisions should be expanded to include injuries and illnesses to construction employees working for employers who would otherwise be exempt from OSHA recordkeeping requirements because they employ fewer than 11 workers (see, *e.g.*, Exs. 20; 15: 350, 359, 369, 407, 425). Two of these commenters recommended adding a requirement to the final rule requiring the site-controlling employer to assist smaller

employers with their records (Exs. 15: 350, 359).

Several commenters recommended adding provisions to the final rule that would provide greater access to the construction site log by employees (see, *e.g.*, Exs. 15: 129, 310, 394) and by other employers (see, *e.g.*, Ex. 15: 310). Others recommended that OSHA include in the final rule a requirement for the site-controlling employer to collect the number of hours worked by each subcontractor to make it easier to calculate each subcontractor's injury and illness rates (see, *e.g.*, Exs. 15: 310, 369, 394), and some commenters recommended that the final rule contain a requirement for subcontractors to report work-related injuries and illnesses to the site-controlling employer (see, *e.g.*, Exs. 15: 359, 369, 440).

The Building and Construction Trades Department (BCTD), AFL–CIO discussed many of these issues while commenting in favor of site logs:

On the project level, the fragmentation of employers on construction sites makes it impossible to assess fully safety and health on a particular project. Since the origins of OSHA, injury and illness recordkeeping has been the responsibility of each individual employer. Nevertheless, the hazards of construction activity are shared by employees across the site, and are not specific to a single employer. Employees are often injured or made ill by circumstances that are not under their own employer's full control. The balkanization of recordkeeping contributes to the failure of full and complete communication in construction.

What is needed, at a national and the project level, is a way to record and count the injuries and illnesses that occur on specific projects. We need to know about illnesses and injuries that are associated with distinct types of construction activity, with the various phases of construction, and with the methods, materials, and hazards that are common to those types of work. Furthermore, we need to develop a measure of injury and illness that spans employers, to get a picture of the aggregate outcomes affecting all actors on a common site. Only with such a tool can the construction industry establish and meet performance benchmarks for safety and health.

Site logs would be useful to all of the actors in the occupational safety and health arena. First, employers would benefit from the collection of this data. General contractors increasingly use safety and health information in selecting their subcontractors, and in evaluating projects. Site logs will give them a new tool for both self-evaluation and the evaluation of other contractors. Similarly, subcontractors are often ignorant of the safety and health performance of other contractors and the general contractor. Site logs will lead to better information for all contractors on the project.

Second, employees will benefit from site logs. The site log will focus employers' attentions upon the risks and hazards that are encountered across the worksite. By concretely illustrating that hazards are everyone's problems, the site log will prompt employers and employees to minimize those hazards and to maximize site safety and health.

Third, owners will benefit from site logs. Today, many owners are selecting contractors on the basis of the contractors' rates for lost work days and total recordables. In many cases, these rates are a poor measure for the owner's purpose. An owner's typical concern is with how well a general contractor manages safety and health on the entire site, not with how many injuries and illnesses occurred within that contractor's own workforce. Site logs can be used to measure the management performance of the general contractor, and will greatly assist the owners in their quest for construction safety.

Finally, OSHA will find the site logs to be enormously useful in its efforts to become a ''data-driven'' agency. First, a project-centric focus will allow OSHA to focus its enforcement and consultation resources. Site logs will be useful to OSHA in scheduling inspections during the phases of construction which appear, through this data, to present the most risks, and in focusing its inspections at construction sites, since the recent illness and injury history of the entire site can be assayed by examining a single document. By the same token, the information revealed by the logs will assist OSHA in reaching out to employers to provide consultative services. Site specific data will also aid OSHA in developing safety and health standards that are appropriately tailored to the risks and hazards of specific types of construction.

The BCTD is convinced that private actors will use site logs to improve safety and health performance. If OSHA establishes a requirement that site logs be kept, the private marketplace will use this new tool to the betterment of employee safety and health (Ex. 15: 394).

Other commenters opposed the addition of a site log provision to the final rule (see, *e.g.*, Exs. 43; 51; 15: 9, 17, 21, 38, 40, 43, 61, 67, 74, 77, 97, 111, 116, 119, 121, 126, 151, 155, 163, 170, 194, 195, 204, 213, 235, 242, 256, 260, 262, 263, 265, 269, 270, 281, 294, 298, 304, 305, 312, 314, 341, 342, 351, 356, 364, 377, 389, 395, 397, 401, 406, 412, 423, 433, 437, 443, 441). The most common argument presented by these commenters was that records should only be kept by the employer, and that one employer should not keep records for another employer's employees (see, *e.g.*, Exs. 15: 9, 116, 126, 163, 195, 204, 260, 262, 265, 281, 294, 304, 312, 314, 341, 342, 351, 364, 389, 395, 396, 397, 401, 406, 423, 433). The Jewell Coal and Coke Company (Ex. 15: 281) stated that:

[t]he sub-contractor should be responsible for keeping up with their own employee injury/illness records as they are the ultimate responsible party for their own employees under worker's compensation regulations and in all other legal issues. This proposal would appear to be trying to switch total responsibility to the site controlling employer for that record keeping purpose and taking the responsibility off the subcontractor with whom the responsibility should lie. It is, we feel, unfairly discriminatory against the site-controlling employer in this case and we are strongly opposed to the wording of this proposal. Even the alternative proposal in this section places the ultimate responsibility upon the project owner for collection of accident and illness information and send it to OSHA. Again we are strongly opposed to the wording of this proposal because it takes the responsibility for record keeping off the sub-contractor and places the ultimate responsibility on the project owner, a responsibility that we feel belongs to the sub-contractor irregardless of their size.

Brown & Root, Inc. (Ex. 15: 423) added ''A site controlling employer cannot be held responsible for determining which injuries and illnesses of a subcontractor's employees are recordable. A contractor cannot become involved in the medical records of employees who do not work for him or her. The subcontractor employer has to be held accountable and responsible for his own employees, this responsibility cannot be delegated to another contractor. The number of employees or the value of the construction project is irrelevant.''

Some of the commenters who generally opposed this provision agreed that site-specific data would be useful if it could be collected by a method that allowed each employer to keep its own records (see, *e.g.*, Exs. 15: 9, 116, 195, 260, 262, 265, 304, 364, 401). Other commenters pointed out that there would be problems in getting accurate data from subcontractors (see, *e.g.*, Exs. 15: 242, 263, 269, 270, 310, 314, 377, 395, 397, 406) or suggested that the site-controlling employer should not be held responsible for the quality of the records received from subcontractors (see, *e.g.*, Exs. 33; 15: 176, 195, 231, 273, 294, 301, 305, 312, 351).

The Alabama Branch of the Associated General Contractors of America, Inc. (AGC) cited difficulties associated with other regulatory requirements that could result from the proposed OSHA site log requirement:

This could place an undue hardship on the site controlling employer far beyond his ability to appoint and manage independent contractors and subcontractors without there being other entangling both federal and state obligations, which would lead to the subcontractor's employees being declared employees of the controlling contractor. Many states use the common law to make a determination of the employer/employee relationship, as well as the Internal Revenue Service. This employee/employer relationship under the common law usually

says if a controlling contractor exercises any control as to time, place, method or result of a person's work that they are in fact defacto employees of the controlling contractor, for social security purposes and other state purposes. Therefore, I think it is shallow thinking to believe that the general contractor with 100 subcontractors should have all 5,500 employees under their control and avoid other legal entanglements, without the ability to actually control the subcontractor.

The National Federation of Independent Business (NFIB) expressed concern about the proposed site log provision as it would relate to OSHA's multi-employer citation policy (Ex. 15: 304), and the Small Business Administration (Exs. 51: 67, 437) argued that the proposed requirement would require competing employers to share sensitive business information.

A number of commenters objected to the requirement because of the additional burden it would place on employers (see, *e.g.*, Exs. 51; 15: 40, 43, 67, 77, 97, 119, 121, 163, 194, 204, 235, 242, 256, 263, 269, 270, 294, 298, 304, 312, 314, 356, 377, 389, 395, 397, 406, 412, 437, 441), arguing that the proposed requirement would result in duplication (see, *e.g.*, Exs. 51; 15: 9, 38, 67, 77, 119, 155, 204, 304, 312, 351, 356, 364, 377, 395, 397, 437). For example, the American Iron and Steel Institute (Ex. 15: 395) stated that the proposed requirement would place a ''near impossible burden on the 'site controlling employer' '' to determine the size of each subcontractor to decide which subcontractors would be required to keep records.

A number of commenters also questioned the value of the statistical data that would be produced by a site log requirement (see, *e.g.*, Exs. 51; 15: 61, 62, 67, 74, 77, 97, 121, 151, 194, 312, 314, 351, 389, 395, 433, 437, 433), and several participants were concerned that the records would not be useful for accident prevention purposes (see, *e.g.*, Exs. 15: 121, 151, 312, 351, 389, 433) .

OSHA received many comments addressing miscellaneous points related to the proposed construction site log requirement. For example, some commenters suggested limiting the scope of the project records required to be maintained (see, *e.g.*, Exs. 15: 17, 21, 111, 116, 213, 155), while others argued that the proposed dollar threshold ($1 million) for a covered construction project was too low and should be raised (see, *e.g.*, Exs. 15: 17, 111, 116, 441). Others suggested that the site log requirement should be triggered by the time duration of the project (Ex. 15: 116); the number of construction workers at the site (Ex. 15: 111); or include only construction employers with more than 11 employees (see, *e.g.*, Exs. 15: 170, 213, 405). Some commenters urged the Agency not to expand the site log concept beyond the construction industry (see, *e.g.*, Exs. 33; 15: 176, 231, 273, 301, 397). Finally, several commenters urged OSHA to make any site log provision in the final rule compatible with the corresponding provisions of the Process Safety Management Standard (29 CFR 1910.119), especially if the site log requirement in the recordkeeping rule was expanded beyond construction (see, *e.g.*, Exs. 33; 15: 159, 176, 231, 273, 301, 335).

Based on a thorough review of the comments received, OSHA has decided not to include provisions in the final that require the site-controlling employer to keep a site log for all recordable injuries and illnesses occurring among employees on the site. OSHA has made this decision for several reasons. First, such a provision would not truly capture the site's injury and illness experience because many subcontractors employ 10 or fewer employees and are therefore exempt from keeping an OSHA Log. To require these very small employers to keep records under Part 1904 for the periods of time they worked on a construction site meeting the dollar threshold for this provision would be a new recordkeeping burden. This would create considerable complexity for these employers and for the site-controlling employer. Second, under the Data Initiative (section 1904.41 of the final rule), OSHA now has a means of targeting data requests for records of the safety and health experience of categories of employers and can therefore obtain the data it needs to establish inspection priorities in a less administratively complex and less burdensome way when the Agency needs such data. Third, OSHA was concerned with the utility of the data that would have been collected under the proposed site log approach, because of the time lag between collection of the data and its use in selecting employers for inspections or other interventions. In many cases work at the site would be complete before the data was collected and analyzed. Finally, a site log requirement is not necessary to enable general contractors to compare the safety records of potential subcontractors since they can require such information as a condition of their contractual arrangements without OSHA requirements. For these reasons, the final rule does not contain a site log provision.

The Use of Alternative Data Sources

Several commenters suggested that the Agency use data from existing data sources, such as state workers' compensation agencies, insurance companies, hospitals, or OSHA inspection files, instead of requiring separate data for OSHA recordkeeping purposes (see, *e.g.*, Exs. 15: 2, 28, 58, 63, 97, 184, 195, 289, 327, 341, 374, 444). For example, Alex F. Gimble observed:

Since similar data are readily available from other sources, such as the National Safety Council, insurance carriers, etc., why not use these statistics, rather than go through this duplication of effort at taxpayer expense? Another approach would be to utilize data collected by OSHA and State Plan compliance officers during site visits over the past 25 years (Ex. 15: 28).

Several commenters suggested that OSHA use injury and illness data from the workers' compensation systems in lieu of employer records. The comments of the American Health Care Association (AHCA) are representative of the views of these commenters:

AHCA encourages OSHA to consider the use of workers' compensation data in lieu of proposed OSHA 300 and 301 forms. Pursuing the enactment of legislation that would allow OSHA access to every state's workers' compensation data would eliminate the need for employers to maintain two sets of records, provide OSHA with necessary safety and health data, and ease administrative and cost burdens now associated with recordkeeping for employers in every industry across the country (Ex. 15: 341).

Ms. Diantha M. Goo recommended the use of injury and illness data obtained from treatment facilities rather than the OSHA records:

The accuracy and usefulness of OSHA's reporting system would be vastly improved if it were to shift responsibility from employers (who have a vested interest in concealment) to the emergency rooms of hospitals and clinics. Hospitals are accustomed to reporting requirements, use the correct terminology in describing the accident and its subsequent treatment and are computerized (Ex. 15: 327).

In response to these comments, OSHA notes that the injury and illness information compiled pursuant to Part 1904 is much more reliable, consistent and comprehensive than data from any available alternative data source, including those recommended by commenters. This is the case because, although some State workers' compensation programs voluntarily provide injury and illness data to OSHA for various purposes, others do not. Further, workers' compensation data vary widely from state to state. Differing state workers' compensation laws and administrative systems have resulted in

large variations in the content, format, accessibility, and computerization of that system's data. In addition, workers' compensation databases often do not include injury and illness data from employers who elect to self-insure.

Additionally, most workers' compensation databases do not include information on the number of workers employed or the number of hours worked by employees, which means that injury and illness incidence rates cannot be computed from the data. Workers' compensation data are also based on insurance accounts (i.e., filed claims), and not on the safety and health experience of individual workplaces. As a result, an individual account often reflects the experience of several corporate workplaces involved in differing business activities. Finally, as discussed below in the Legal Authority section of the preamble, the OSH Act specifically sets out the recordability criteria that must be included in the OSHA recordkeeping system envisioned by the Congress when the Act was passed. The Congress intended that all non-minor work-related injuries and illnesses be captured by the OSHA recordkeeping system, both so that individual establishments could evaluate their injury and illness experience and so that national statistics accurately reflecting the magnitude of the problem of occupational injury and illness would be available.

Although OSHA disagrees that any of the alternate sources of data are satisfactory substitutes for the information gathered under Part 1904, the Agency recognizes that data from these sources have value. To the extent that information from workers' compensation programs, the BLS statistics, insurance companies, trade associations, etc., are available and appropriate for OSHA's purposes, OSHA intends to continue to use them to supplement its own data systems and to assess the quality of its own data. However, consistent with the Congressional mandate of the OSH Act, OSHA must continue to maintain its own recordkeeping system and to gather data for this system through recording and reporting requirements applicable to covered employers.

Section 1952.4 Injury and Illness Recording and Reporting Requirements

The requirements of 29 CFR 1952.4 describe the duties of State-Plan states to implement the 29 CFR 1904 regulations. These requirements are discussed in Section IX of the preamble, State Plans, and in the preamble discussion for section 1904.37, State recordkeeping regulations.

General Issues Raised by Commenters

In addition to the issues discussed above, three issues concerning recordkeeping warrant discussion: analysis of the data, training and qualifications of recordkeepers, and recordkeeping software.

Analysis of the Data

During OSHA's public meetings, Eric Frumin of the Union of Needletrades, Industrial and Textile Employees, AFL–CIO (UNITE) urged OSHA to include a requirement for employers to analyze the OSHA 1904 data in depth to discover patterns and trends of occupational injury and illness, stating that:

> [y]ou're telling the employers to evaluate information that's coming to them, and I say that to stress the point that's a very logical, common sense requirement and you're not generally speaking asking them to do that once they compile a log. You stop short of asking employers to evaluate the log in toto, to look for the kinds of trends and comparisons and so forth that we've been discussing here. I think it's important for OSHA to consider some—making such a requirement, particularly in light of a fairly consistent pattern of testimony in this proceeding, wherein employers now do not analyze what's on the log in much depth. * * * But what has emerged at the end of the day is not a whole lot of use of the information on the log for—in terms of analyzing it for trends and various associations or conclusions about how to protect people, how to stop the injuries and illness (Ex. 58X, pp. 372—375).

In the final rule, OSHA has not included any requirement for employers to analyze the data to identify patterns or trends of occupational injury and illness. OSHA agrees with Mr. Frumin that analysis of the data is a logical outgrowth of maintaining records. Employers and employees can use such analyses to identify patterns and trends in occupational injuries and illnesses, and use that information to correct safety and health problems in the workplace. OSHA encourages both employers and employees to use the data for these purposes. However, a requirement of this type would go beyond the scope of the recording and reporting rule, which simply requires employers to keep records of work-related injuries and illnesses, and report the data under certain circumstances. OSHA believes that requirements of this type are better addressed through an OSHA standard, rather than the 1904 recordkeeping regulation.

Training of Recordkeepers

The American Federation of Labor and Congress of Industrial Organizations (AFL–CIO) suggested that OSHA add requirements for the training of the individual who maintains the 1904 records for the employer, stating that:

> [a]nother important issue relates to the qualifications and responsibilities of the individual filling out the 300 log and Form 301. Most workplaces generally have a non-safety and health professional entering this information in the 300 log after the decision of a recordable injury or illness has been made. In our view it is important that these individuals have proper training about the recordkeeping rule and the employer's recordkeeping system. In order to assure the most accurate and complete recording of work-related injuries and illnesses, we encourage the Agency to consider developing guidelines for the qualifications and training of these individuals (Ex. 15: 418).

OSHA has not included a training requirement for the person entering the information on the Part 1904 records in this final rule. The Agency believes that the Section 1904.32 provisions of the final rule calling for annual review of the records and certification of the annual summary by a company executive will ensure that employers assign qualified personnel to maintain the records and to see that they are trained in that task. Further, because OSHA did not include training requirements in its 1996 proposal, the Agency has not gathered sufficient information in the rulemaking docket about whether specific training provisions would have utility, as well as the appropriate qualifications and training levels that would assist in writing such provisions at this time.

As part of its outreach and training program accompanying this rule, OSHA will be providing speeches and seminars for employers to help them train their recordkeeping staff. OSHA will also be producing materials employers can use to help train their recordkeeping staff, including free software employers can use to keep records, training programs, presentations, course outlines, and a training video. All of these materials will be available through OSHA's Internet home page at www.osha.gov.

OSHA-Produced Recordkeeping Software

In its proposal (61 FR 4048), OSHA asked the public to comment on whether or not OSHA should develop computer software to make injury and illness recordkeeping easier for employers, and discussed the features that would be desirable for such software. Those features were:

—decision-making logic for determining if an injury or illness is recordable;

—automatic form(s) generation;

—the ability to assist the employer in evaluating the entered data through several preset analytical tools (*e.g.*, tables, charts, etc.); and

—computer based training tools to assist employers in training employees in proper recordkeeping procedures.

OSHA also suggested that any such software should be in the public domain and/or be available at cost to the public and asked the following questions: What percentage of employers have computers to assist them in their business? What percentage of employers currently use computers for tracking employee-related information (payroll, timekeeping, etc.)? Should the distribution be through the Government, public domain share-ware distribution, or other channels? Should OSHA develop the software or only provide specifications for its requirements?

Several commenters said that most business establishments had computers (see, *e.g.*, Exs. 15: 9, 95, 163, 281, 288, 375). The American Health Care Association (AHCA) estimated that 50% to 70% of their members used computers (Ex. 15: 341), and Raytheon Constructors, Inc. estimated that 60% of employers are using computers. OSHA agrees that computers are available in most businesses, although certainly not all of them. The agency also notes that these comments were made in 1996, and that businesses' computer usage has grown since that time.

A number of commenters urged OSHA to produce and distribute software to help employers keep the Part 1904 records (see, *e.g.*, Exs. 35; 36; 51; 15: 9, 26, 32, 34, 67, 68, 76, 87, 95, 105, 109, 111, 129, 154, 157, 170, 181, 182, 197, 225, 235, 239, 247, 272, 277, 281, 283, 288, 303, 313, 327, 341, 347, 350, 352, 353, 356, 394, 405, 406, 409, 418, 426, 437, 438). The commenters gave various reasons for favoring the provision of OSHA-provided software, including reducing the burden and cost of the rule for employers (see, *e.g.*, Exs. 15: 87, 95, 111, 170, 182, 197, 350), saving businesses programming costs (Ex. 15: 277), helping small businesses (Ex. 51; 15: 67), resulting in more uniform data (see, *e.g.*, Exs. 36; 15: 32, 153, 170, 181, 347, 409, 418), and facilitating analysis of the data (see, *e.g.*, Exs. 35; 15: 153, 418). For example, the Ford Motor Company stated that ''Ford feels that the development of recordkeeping software by OSHA, which will employ a decision-making logic, automatic form generation, the ability to assist the employer in evaluating the entered data, and a tutorial section to assist employers in training is necessary. This will enhance the uniformity of data collection amongst all users, which is currently lacking'' (Ex. 15: 347). The Muscatine Iowa Chamber of Commerce Safety Committee (Ex. 15: 87) added that:

> ''[e]very feature identified as a minimum requirement would be a great benefit to employers attempting to comply with the OSHA recordkeeping requirements. Prompts which would in any way aid in the determination of recordability would be appreciated by any person without a great deal of experience in filing OSHA reports. We feel these features are especially important now with the changes in forms and information to be collected.''

Several of the commenters who urged OSHA to provide computer software tempered their support by asking that the use of such software should be optional and not mandatory (see, *e.g.*, Exs. 15: 60, 109, 154, 198, 225, 247, 272, 303, 394), and several other commenters recommended that OSHA provide both software and specifications so employers could use the OSHA product to build their own data systems (see, *e.g.*, Exs. 15: 170, 247, 283).

A number of commenters told OSHA that the Agency should not produce software to help employers with their 1904 recordkeeping obligations (see, *e.g.*, Exs. 15: 78, 82, 85, 156, 163, 324, 348, 359, 363, 374, 375, 378, 402, 414). Several of these commenters suggested OSHA produce software performance specifications for the industry (see, *e.g.*, Exs. 15: 156, 163, 357, 387). The commenters had various reasons for opposing the production of software. Several stated that each employer wants different data in its own unique form (see, *e.g.*, Exs. 15: 78, 85, 375, 414). For example, the Central Vermont Public Service Corporation (Ex. 15: 85) stated that ''[b]usinesses using safety related software use programs that can perform OSHA recordkeeping and workers' compensation functions in one package. It is unlikely that software developed by OSHA will perform workers' compensation functions and therefore it will not be well received or utilized by business.'' Other commenters stated that OSHA should focus elsewhere, that the private sector could produce software more economically (see, *e.g.*, Exs. 15: 357, 375, 387), and that OSHA software is not needed (see, *e.g.*, Exs. 15: 363, 378). For example, the Synthetic Organic Chemical Manufacturers Association, Inc. (SOCMA) stated that ''[a]n outside organization with software development expertise should develop the software. OSHA's limited resources should go directly toward improving safety and health in the workplace'' (Ex. 15: 357). The Air Transport Association added: ''[m]ost major companies have developed their own software to support required OSHA recordkeeping, and others have taken advantage of commercially available programs. We see no need for OSHA to enter this market'' (Ex. 15: 378).

OSHA has decided that the Agency will produce software for employers to use for keeping their OSHA 1904 records. There is obviously a need for the Agency to provide outreach and assistance materials for employers, particularly small employers, to help them meet their obligations in the least burdensome way possible, and software will clearly help achieve this goal. In addition, computer software will improve the consistency of the records kept by employers, and will assist them with analysis of the data. At this time, OSHA has not developed the software or its specifications, but will make every effort to produce and distribute software to assist employers by the time this final rule becomes effective. Use of the OSHA produced software will be optional; employers are not required to use this software and may keep records using paper systems. Employers are also free to produce their own software, or to purchase software.

VI. Legal Authority

A. The Final Recordkeeping Rule Is a Regulation Authorized by Sections 8 and 24 of the Act

The Occupational Safety and Health Act authorizes the Secretary to issue two types of final rules, ''standards'' and ''regulations.'' Occupational safety and health standards, issued pursuant to section 6 of the Act, specify the measures to be taken to remedy known occupational hazards. 29 U.S.C. 652(8), 655. Regulations, issued pursuant to general rulemaking authority found, inter alia, in section 8 of the Act, are the means to effectuate other statutory purposes, including the collection and dissemination of records on occupational injuries and illnesses. 29 U.S.C. 657(c)(2).

OSHA is issuing this final recordkeeping rule as a regulation pursuant to the authority expressly granted by sections 8 and 24 of the Occupational Safety and Health Act, 29 U.S.C. 657, 673. Section 8 authorizes the Secretary to issue regulations she determines to be necessary to carry out her statutory functions, including regulations requiring employers to record and report work-related deaths and non-minor injuries and illnesses.[1] Section 8(c)(1) of the Act requires each

[1] This rule excludes minor or insignificant injuries and illnesses from reporting requirements. The exclusion of minor illnesses represents a change from the former rule, and is discussed *infra*.

employer to ''make, keep and preserve, and make available to the Secretary [of Labor] or the Secretary of Health [and Human Services], such records regarding his activities relating to this Act as the Secretary, in cooperation with the Secretary of Health and Human Services, may prescribe by regulation as necessary or appropriate for the enforcement of this Act or for developing information regarding the causes and prevention of occupational accidents and illnesses.'' Section 8(c)(2) further provides that the ''Secretary, in cooperation with the Secretary of Health and Human Services, shall prescribe regulations requiring employers to maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.'' Section 8(c)(3) empowers the Secretary to require employers to ''maintain accurate records of employee exposures to potentially toxic materials or harmful physical agents which are required to be monitored or measured under Section 6.''

Section 8(g)(1) authorizes the Secretary ''to compile, analyze, and publish, whether in summary or detailed form, all reports or information obtained under this section.'' Section 8(g)(2) of the Act empowers the Secretary ''to prescribe such rules and regulations as he may deem necessary to carry out his responsibilities under the Act.''

Section 24 contains a similar grant of regulatory authority. It requires the Secretary to ''develop and maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics * * * The Secretary shall compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries and illnesses, whether or not involving loss of time from work, other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.'' Section 24 also empowers the Secretary to ''promote, encourage, or directly engage in programs of studies, information and communication concerning occupational safety and health statistics.'' Finally, Section 24 requires employers to ''file such reports with the Secretary as he shall prescribe by regulation, as necessary to carry out his functions under this chapter.''

Section 20 of the Act, 29 U.S.C. 669, contains additional implicit authority for collecting and disseminating data on occupational injuries and illnesses. Section 20(a) empowers the Secretaries of Labor and Health and Human Services to consult on research concerning occupational safety and health problems, and provides for the use of such research, ''and other information available,'' in developing criteria on toxic materials and harmful physical agents. Section 20(d) states that ''[i]nformation obtained by the Secretary and the Secretary of [HHS] under this section shall be disseminated by the Secretary to employers and employees and organizations thereof.''

Two federal circuit Courts of Appeals have held that rules imposing recordkeeping requirements are regulations and not standards, and are thus reviewable initially in the district courts, rather than the Courts of Appeals. *Louisiana Chemical Assn.* v. *Bingham,* 657 F.2d 777, 782–785 (5th Cir. 1981) (OSHA rule on Access to Employee Exposure and Medical Records); *Workplace Health & Safety Council* v. *Reich,* 56 F.3d 1465, 1467–1469 (D.C. Cir. 1995) (OSHA rule on Reporting of Fatality or Multiple Hospitalization Incidents). These courts applied a functional test to differentiate between standards and regulations: standards aim toward correction of identified hazards, while regulations serve general enforcement and detection purposes, including those outlined in section 8. E.g., *Workplace Health & Safety Council,* 56 F.3d at 1468. See also *United Steelworkers of America* v. *Reich,* 763 F.2d 728, 735 (3d Cir. 1985) (Hazard Communication rule is a standard because it aims to ameliorate the significant risk of inadequate communication about hazardous chemicals). Clearly, the recordkeeping requirements in this final rule serve general administrative functions: They are intended to ''aid OSHA's effort to identify the scope of occupational safety and health problems,'' to ''serve as the foundation for national statistics on the number and rate of workplace injuries and illnesses'' and ''to raise employers'' awareness of the kinds of injuries and illnesses occurring in their workplaces.'' See *Functions of the Recordkeeping System, supra.* Therefore, the final rule falls squarely within the mandate of sections 8 and 24 of the Act and is properly characterized as a regulation.

B. The Legal Standard: The Regulation Must Be Reasonably Related to the Purposes of the Enabling Legislation

Under section 8, the Secretary is empowered to issue ''such * * * regulations as [s]he may deem necessary to carry out [her] responsibilities under this Act[,]'' including regulations requiring employers to record and to make reports on ''work-related deaths, injuries and illnesses other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion or transfer to another job.'' 29 U.S.C. 657(g)(2), (c)(2). Similarly, section 24 directs the Secretary to compile accurate statistics on ''all disabling serious, or significant injuries and illnesses, whether or not involving loss of time from work, other than minor injuries. * * *'' 29 U.S.C. 673(a). Where an agency is authorized to prescribe regulations ''necessary'' to implement a statutory provision or purpose, a regulation promulgated under such authority is valid ''so long as it is reasonably related to the enabling legislation.'' *Mourning* v. *Family Publications Service, Inc.,* 411 U.S. 356, 369 (1973).

Section 8(g)(2) is functionally equivalent to the enabling legislation at issue in *Mourning*; therefore a reviewing court must examine the final recordkeeping rule's relationship to the purposes of section 8. Cf. *Louisiana Chemical Assn.* v. *Bingham,* 550 F. Supp. 1136, 1138–1140 (W.D. La. 1982), *aff'd*, 731 F.2d 280 (5th Cir. 1984) (records access rule is directly related to the goals stated in the Act and supported by the language of section 8).

C. The Final Recordkeeping Rule's Key Provisions Are Reasonably Related to the Purposes of the OSH Act

The goal of this final rule, as stated in the Summary, is to improve the quality and consistency of injury and illness data while simplifying the recordkeeping system to the extent consistent with the statutory mandate. To achieve this purpose, the final rule carries forward the key elements of the existing recordkeeping scheme, with changes designed to improve efficiency, equity, and flexibility while reducing, to the extent practicable, the economic burden on individual establishments. The central requirements in the final rule may be summarized as follows: All non-exempt employers must record all work-related, significant injuries and illnesses. As discussed below, OSHA's approach to each of these elements—the scope of the exemptions from recording requirements, the meaning of ''work-relationship,'' and the criteria for determining whether an injury or illness is ''significant''—is reasonable and directly related to the statutory language and purpose.

1. Exemptions From Recordkeeping Requirements

The final rule contains two categories of exemptions that, together, relieve most employers of the obligation routinely to record injuries and illnesses sustained by their employees. Section 1904.1 contains a ''very small-employer'' exemption: Employers need not record injuries or illnesses in the current year if they had 10 or fewer employees at all times during the previous year, unless required to do so pursuant to Sections 1904.41 or 1904.42. Section 1904.2 contains a ''low-hazard industry'' exemption: Individual business establishments are not required to keep records if they are classified in specific low-hazard retail, service, finance, insurance, or real estate industries.

a. The size-based exemption. Section 8(d) of the Act expresses Congress' intent to minimize, where feasible, the burden of recordkeeping requirements on employers, particularly small businesses: ''Any information obtained by the Secretary, the Secretary of [HHS], or a State agency under this Act shall be obtained with a minimum burden upon employers, especially those operating small businesses. Unnecessary duplication of efforts in obtaining information shall be reduced to the maximum extent feasible.'' 29 U.S.C. 657(d).

Since 1972, the Secretary has exempted very small businesses from most recordkeeping requirements. On October 4, 1972, OSHA issued a provision, codified at 29 CFR 1904.15(a), exempting employers from routine injury and illness reporting requirements for the current year if they had no more than seven employees during the previous year. The exemption did not relieve these businesses from the obligation to report fatality and multiple hospitalization incidents to OSHA and to participate in the BLS annual survey when selected to do so. 37 FR 20823 (October 4, 1972). In 1977, the Secretary amended section 1904.15 to make it applicable to businesses having ten or fewer employees during the year preceding the current reporting year. 42 FR 38568 (July 29, 1977). As support, the amendment cited the Department of Labor appropriations acts for fiscal years 1975 and 1976, which exempted employers having ten or fewer employees from most routine recordkeeping requirements, and Section 8(d) of the Act. *Id.* The Secretary determined that the amendment appropriately balanced the interest of very small businesses while preserving the essential purposes of the recordkeeping scheme:

> The [exemption] has been carefully designed to carry out the mandate of section 8(d) without impairing the Act's basic purpose. Thus, the [exemption] will not diminish the protections afforded employees under the Act because all employers * * * remain subject to the enforcement provisions of the Act. The [exemption] will continue to require * * * small employers * * * to report fatalities and multiple hospitalizations and to participate in the BLS annual survey when selected to do so.

42 FR 10016 (February 18, 1977).

In the present rulemaking, the Secretary proposed to enlarge the scope of the exemption to include employers, in industries other than construction, having 19 or fewer employees during the entire previous calendar year. 61 FR 4057 (February 2, 1996). At the same time, the proposal asked for public comment on whether ''the small employer partial exemption [should] remain the same, be eliminated, or be expanded?'' 61 FR 4043. In reaching a final decision on this matter, the Secretary resolved two interrelated questions. First, she determined that there is no sound basis for departing from OSHA's prior interpretation that the Act permits a carefully crafted exemption for very small employers. Second, she determined that limiting the exemption to employers with ten or fewer employees effectuates Congress' intent with the minimum degree of impairment to the overall recordkeeping scheme. The first question is essentially one of statutory construction, and is therefore considered below. The second question calls for an analysis of the record and is addressed in the preamble explanation for section 1904.1 of the final rule.

It is a fundamental principle of administrative law that an agency which chooses to reverse a previously held position must supply a ''reasoned analysis'' of its decision. *Motor Vehicle Mfgrs Assn.* v. *State Farm Mutual Automobile Insurance Co.,* 463 U.S. 27, 42 (1983). After careful consideration, the Secretary finds no persuasive basis for eliminating the small-employer exemption in this rule. As a threshold matter, nothing has changed the agency's long-held view that section 8(d) permits a carefully tailored exemption from recordkeeping requirements for very small businesses. 42 FR 10016 (February 18, 1977). This interpretation is consistent with the literal wording of the statute and is further confirmed by the provisions in the Department's appropriations acts for FY 1975 and 1976, exempting employers with ten or fewer employees from routine recordkeeping and reporting requirements. See 42 FR 5356 (January 28, 1977) (noting restriction in FY 1975 and 1976 appropriations acts and stating OSHA would continue to treat firms of up to 10 employees as exempt pending permanent change in the regulations to expand the small-employer exemption).

OSHA also concludes that a very small business exemption limited to the routine recording and reporting of non-fatal injuries and illnesses will not seriously undermine the recordkeeping system. OSHA explained in Section I. of the preamble that there are three primary purposes for recordkeeping and reporting requirements. First, the records are the foundation for national statistics published by the BLS on the number and rate of workplace injuries and illnesses, as well as their source, nature and type. Second, the records provide information useful to employers and employees in their efforts voluntarily to locate and eliminate workplace safety and health hazards. Finally, the records are useful to OSHA in targeting its enforcement efforts and in efficiently conducting its safety and health inspections.

Exempting very small businesses from routine recordkeeping will not significantly compromise these goals. The exemption has no effect upon the obligation of these businesses to participate in the national statistical survey administered by the BLS. See the discussion of § 1904.42 in Section V. Summary and Explanation. If a small business is selected for participation in the survey, it must keep a log of injuries and illnesses and make reports as required by the BLS. *Id.* Thus, even the smallest firms continue to be represented in the national injury and illness statistics.

The second purpose is not seriously compromised by the exemption because injury and illness records are less necessary as an aid to voluntary compliance efforts by very small employers and their employees than they are for larger employers. OSHA's experience is that, in establishments with only a few employees, management and production personnel typically work in close concert. Because of their size, such establishments also tend to record fewer occupational injuries and illnesses. Accordingly, in very small firms, managers are likely to have first-hand knowledge of those occupational injuries and illnesses that occur in their workplaces. By the same token, it is reasonable to believe that employees in very small firms are generally aware of the injuries that occur in their workplaces and do not

rely heavily upon access to employer records to inform themselves about occupational hazards. In short, review and analysis of injury and illness records by very small business employers, or by their employees, may not be required for awareness of workplace conditions.

Finally, routine injury and illness records are of limited usefulness to OSHA in targeting and conducting inspections. Many OSHA inspections are conducted in response to a specific complaint or referral alleging unsafe conditions, or in response to a workplace catastrophe or fatality. A large number of inspections are also conducted under special emphasis programs at the national and local level. The remaining inspections are conducted at specific worksites in the construction industry and in other non-construction industries selected under a planned schedule. Construction inspections are selected using an econometric model that predicts the best time to conduct an inspection at a specific construction project. The general industry scheduled inspections are targeted primarily toward employers with extremely high rates of occupational injury and illness, using data supplied by employers to the OSHA Data Initiative (ODI) under the requirements of former section 1904.17, *Annual OSHA Injury and Illness Survey of Ten or More Employers (now section 1904.41)*. Due to budget, paperwork burden and logistical constraints, OSHA collects data only from employers in high hazard industries, and has generally not collected data from employers with fewer than 40 workers.

OSHA is also prohibited from conducting scheduled inspections of employers with 10 or fewer employees in low hazard industries by an annual rider on OSHA's appropriations bills which has been renewed annually for many years. Thus, OSHA does not collect data from very small employers, and they are excluded from the general industry scheduled inspection program. Because very small firms have been wholly excluded from the general schedule inspection program, the routine injury and illness records of very small businesses have been of little use to OSHA in targeting inspections. Should OSHA wish to include very smaller employers in a special emphasis inspection program or other initiative, the agency may require any business, regardless of its size, to keep records and make reports as necessary. See 29 CFR 1904.41.

OSHA also finds that access to the Log and Incident Report would be of little value to compliance officers in conducting inspections of very small businesses initiated by a complaint or report of a fatality or an accident resulting in multiple hospitalizations. OSHA has long acknowledged that while injury and illness records are frequently useful in identifying hazardous areas or operations within larger establishments subject to programmed inspections, they are significantly less important in the conduct of inspections in the smallest businesses. As OSHA has stated, ''experience has shown that when dealing with small employers, the injury and illness records * * * are normally not needed by the CSHO to locate hazards during an inspection. In those cases where log information may be needed, the CSHO can easily obtain the information by interviewing the employees.'' 42 FR 10016 (February 18, 1977). See also 47 FR 57699, 5700 (December 28, 1982) (in conducting complaint or fatality inspections, the hazard information is usually provided by the complaint itself, or through prompt investigation.) For these reasons, the Secretary believes that an exemption for very small employers, reasonably tailored to the purposes served by recordkeeping requirements, is appropriate.

b. The hazard-based exemption. Since 1982, OSHA has exempted from routine recordkeeping requirements certain industries classified in OMB's Standard Industrial Classification (SIC) Manual. The 1982 exemption was limited to establishments in SIC Industry Groups that (1) were not subject to general schedule inspections, and (2) had average lost workday case injury rates, as published by the BLS, at or below 75% of the national average. In 1982, the industry groups that met these criteria were those classified as retail trade, finance, insurance, real estate, and services—SIC codes 52–89, excluding 52–54, 70, 75, 76, 79, and 80. 47 FR 57699–57,700 (December 28, 1982).

The purpose of the exemption ''was to further OSHA's continuing effort under section 8(d) of the Act to reduce the paperwork burden on employers without compromising worker safety and health.'' 47 FR 57700. Exempting low-hazard industries from routine record-keeping was justified, OSHA explained, for the same reasons that warranted exempting very small businesses. Injury and illness records from establishments in the affected SIC codes were not of significant benefit to OSHA because these industry groups were not then targeted for general schedule inspections. *Id.* The records were not a significant source of information for employers and employees because BLS data showed that approximately 94% of all establishments in the affected industry groups could be expected to have fewer than two injuries per establishment on an annual basis. *Id.* Finally, the exemption would not affect the reliability of safety and health statistics because the affected establishments would continue to participate in the BLS annual survey of occupational injuries and illnesses. *Id.*

OSHA continues to believe that a properly tailored exemption for low-hazard industries is appropriate. Congress intended in section 8(d) to minimize the recordkeeping burden on all employers, not only small businesses. Exempting from routine injury and illness reporting requirements those employers whose records are unlikely to be of significant benefit to OSHA, or to the employers and their employees, serves this important interest. However, OSHA recognizes that the balance between the interest of minimizing recordkeeping burdens and that of ensuring accurate, reliable and useful information is a delicate one. In the final rule, OSHA has substantially revised the list of exempt low-hazard industries based upon more reliable three-digit industry classification data. See the discussion of § 1904.1, in the following Summary and Explanation. With these changes, OSHA believes that the rule strikes the appropriate balance.

2. The Meaning of ''Work-Relationship''

Section 8 of the Act directs the Secretary to prescribe regulations requiring employers to ''maintain accurate records of * * * work-related deaths injuries and illnesses [of a non-minor nature]. 29 U.S.C. 657(c)(2). The definition of work-relationship in section 1904.5 of the final rule is consistent, in all but one respect, with the definition in the *Guidelines* to the former rule. The final rule states that an injury or illness is work-related ''if an event or exposure in the work environment either *caused or contributed to* [it] or significantly aggravated a pre-existing injury or illness. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, unless an exception listed in section 1904.5(b)(2) specifically applies'' (emphasis added).

The *Guidelines* state that, ''[i]f an event * * * occurred in the work environment *that caused or contributed to the* injury'', the case would be recordable, assuming it meets the other requirements for recordability. Ex. 2 at

p. 32 (original emphasis). Further instructions in the *Guidelines* provided that:

> The general rule is that all injuries and illnesses which result from events or exposures occurring to employees on the employer's premises are *presumed* to be work related. This presumption is rebuttable. * * * However, the nature of the activity which the employee is engaged in at the time of the event or exposure, the degree of employer control over the employee's activity, the preventability of the incident, or the concept of fault do not affect the determination.

Ex. 2 at p. 34 (original emphasis). The only significant difference between the final rule and the former rule is that the final rule requires that work ''significantly'' aggravate a pre-existing injury or illness before the case is recordable.

OSHA's approach to work-relationship in both the former and the final recordkeeping rules reflects two important principles. The first is that work need only be a causal factor for an injury or illness to be work-related. The rule requires neither precise quantification of the occupational cause, nor an assessment of the relative weight of occupational and non-occupational causal factors. If work is a tangible, discernible causal factor, the injury or illness is work-related. The second principle is that a ''geographic presumption'' applies for injuries and illnesses caused by events or exposures that occur in the work environment. These injuries and illnesses must be considered work-related unless an exception to the presumption specifically applies.

The final rule's geographic presumption reflects a theory of causation similar to that applied by courts in some workers' compensation cases. Under the ''positional-risk'' test, an injury may be found to ''arise out of'' employment for compensation purposes if it would not have occurred but for the fact that the conditions and obligations of employment placed the claimant in the position where he or she was injured. See 1 Larson's Workers' Compensation Law section 6.50 (1977). *Accord, Odyssey/Americare of Oklahoma* v. *Worden,* 948 P.2d 309, 311 (Okla. 1997). Under this ''but for'' approach to work-relationship, it is not necessary that the injury or illness result from conditions, activities or hazards that are uniquely occupational in nature. Accordingly, the presumption encompasses cases in which an injury or illness results from an event at work that is outside the employer's control, such as a lightning strike, or involves activities that occur at work but that are not directly productive, such as horseplay.

The proposed rule asked for comment on whether OSHA should abandon its historic approach and adopt a new test for determining work-relationship. 61 FR 4044, 4045. The proposal outlined three alternative tests in which the determination of work-relationship turned on the degree to which the injury or illness was linked to occupational causes, as compared with personal factors such as off-the job activities, aging, or pre-existing medical conditions. Two of these alternative tests required evidence of a high degree of work causation to establish work-relationship. Alternative 1 required that occupational factors be the ''sole cause'' of the injury or illness; any evidence of non-work related causal factors was sufficient to exclude the case. Alternative 2 required that occupational factors be the ''predominant cause'' before the case could be considered work-related. See 61 FR 4044. Some commenters suggested a modification to Alternative 2 that would have involved substitution of the word ''substantial'' or ''significant'' for ''predominant.''

The third alternative test was significantly more expansive than that adopted in the final rule. Under Alternative 3, an injury or illness would be considered work-related if the work environment had any possibility of playing a causal role. 61 FR 4044.

Some commenters favored a somewhat different test for work-relationship that focused on the nature of the injury-causing event in the workplace. This test would include in the OSHA records only those cases resulting from uniquely occupational or job-related activities or processes. Supporters of this approach argued that it would exclude injuries and illnesses caused by factors at work that are unrelated to production tasks, or that are unpreventable by the employer's safety and health program.

After careful consideration of the record, OSHA believes that the final rule's test for work-relationship is both more consistent with the Act's purpose and more practical than the ''quantified occupational cause'' tests or the ''unique occupational conditions'' test. The language of the statute itself indicates that Congress did not intend to give ''work-related'' a narrow or technical meaning, but rather sought to cover a variety of causal relationships that might exist in workplaces. Section 2 of the Act addresses injuries and illnesses arising out of ''work situations.'' Sections 2(b)(1), 2(b)(2), and 2(b)(4) refer to ''places of employment,'' and to the achievement of safe and healthful ''working conditions.'' Section 2(b)(7) seeks to assure that no employee will suffer diminished health or life expectancy as a result of his ''work experience.'' Section 2(b)(12) states that one of the Act's purposes is to provide for reporting procedures which ''accurately describe the nature of the occupational safety and health problem.'' Section 2(b)(13) encourages joint labor-management efforts to reduce injuries and disease ''arising out of employment.''

This conclusion is further supported by the Act's stated purpose to promote research into the causes and prevention of occupational injuries and illnesses. Section 2 of the Act establishes Congress' intent to improve occupational safety and health, *inter alia,* by:

> Providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniques and approaches for dealing with occupational safety and health problems. 29 U.S.C. § 651(b)(5)
>
> [E]xploring ways to discover latent diseases, establishing causal connections between diseases and work in environmental conditions, and conducting other research relating to health problems. * * * 29 U.S.C. § 651(b)(6).
>
> Providing for appropriate reporting procedures with respect to occupational safety and health which will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problems. 29 U.S.C. § 651(b)(12).

The legislative history of the Act demonstrates Congress' awareness of the importance of developing information for future scientific use. The Committee Report accompanying the Senate bill reported to the floor noted that,

> [i]n the field of occupational health, the view is particularly bleak, and due to the lack of information and records, may well be considerably worse than we currently know. * * * Recent scientific knowledge points to hitherto unsuspected cause-and-effect relationships between occupational exposures and many of the so-called chronic diseases—cancer, respiratory ailments, allergies, heart disease, and others. In some instances, the relationship appears to be direct: asbestos, ionizing radiation, chromates, and certain dye intermediaries, among others, are directly involved in the genesis of cancer. In other cases, occupational exposures are implicated as contributory factors. The distinction between occupational and non-occupational illnesses is growing increasingly difficult to define.

S. Rep. No. 1282, 91st Cong., 2d Sess. 2 (1970), *reprinted in* Subcommittee on Labor of the Senate Committee on Labor and Public Welfare, *Legislative History of the Occupational Safety and Health Act of 1970* (Committee Print 1971) at

142 (Leg. Hist.). With this background in mind, the committee stated that it ''expects the Secretary of Labor and the Secretary of [HHS] will make every effort through the authority to issue regulations and other means, to obtain complete data regarding the occurrence of illnesses, including those resulting from occupational exposure which may not be manifested until after the termination of such exposure.'' Leg. Hist. at 157.

Both the Senate and the House Committees expressed concern that the statute not be interpreted in a way that would result in under-reporting of injuries and illnesses. The Senate report states:

> The committee recognizes that some work-related injuries or ailments may involve only a minimal loss of work time or perhaps none at all, and may not be of sufficient significance to the Government to require their being recorded or reported. However, the committee was also unwilling to adopt statutory language which, in practice might result in under-reporting. The committee believes that records and reports prescribed by the Secretary should include such occurrences as work-related injuries and illnesses requiring medical treatment or restriction or reassignment of work activity, as well as work-related loss of consciousness.

Leg. Hist. at 157. The House Report similarly noted that while some injuries and illnesses might not be of enough value to require recordation, ''the greater peril'' lay in allowing under reporting. Leg. Hist. at 860. Therefore, the report added, ''[the] language 'all work-related injuries, [and illnesses]' should be treated as a minimum floor. * * *''

In light of these purposes, it is apparent that Congress did not, in Section 8, mean to limit recordable ''work-related'' injuries and illnesses only to those caused primarily or substantially by work. It is evident from the statute that Congress wanted employers to keep accurate records of non-minor injuries and illnesses, in part, to serve as a basis for research on the causes and prevention of industrial accidents and diseases. This research is needed, among other reasons, to further examine and understand those occupational factors implicated as contributory causes in injuries and diseases. To serve this purpose, the records should include cases in which there is a tangible connection between work and an injury or illness, even if the causal effect cannot be precisely quantified, or weighed against non-occupational factors.

The first two alternative quantification theories outlined in the preamble would exclude important information from the records. These theories would eliminate cases in which the work environment is believed to have played a definite role in the accident or the onset of disease, but not enough is known to quantify the effect of work factors or to assess the relative contribution of work and non-work factors. However, the information provided by cases having a tangible, yet unquantifiable, connection with the work environment is useful to employers, employees and researchers and thus serves the recordkeeping purposes envisioned by Congress.

On the other hand, the third alternative theory in the proposal would sweep too broadly. A work-relationship test that is met if work has ''any possibility of playing a role in the case'' would include virtually every injury or illness occurring in the work environment. 61 Fed. Reg. 4044. Recording cases in which the causal connection to work is so vague and indefinite as to exist only in theory would not meaningfully advance research, or serve the other purposes for requiring recordkeeping. For these reasons, OSHA has rejected the three alternative theories outlined in the proposal.

The ''unique occupational activity'' test, which some commenters favored instead of the geographic presumption, would limit recorded injuries and illnesses to those caused by an activity or process peculiarly occupational in nature. Supporters of this approach identified several types of cases that would be work-related under the geographic presumption, but not recordable under an activities-based approach. These include cases in which the injury or illness was not caused by the physical forces or hazards unique to industrial processes, cases in which the employee was not injured while performing an activity or task directly related to production, and cases in which the injury or illness was not preventable by the employer.

The ''unique occupational activity'' test is unsuitable for essentially the same reasons that militate against the first two alternatives described in the proposal. The statutory language and purpose do not reflect a Congressional intent to limit recording only to those cases resulting from uniquely occupational hazards or activities. Rather, the statute shows that Congress knew that employees were being injured and made ill in a variety of ways and under a variety of circumstances, and wanted employers to record all cases causally related to the work environment. The ''but-for'' theory underlying the geographic presumption is a widely accepted legal test for causation and is consistent with the statutory language and purpose.

The ''unique occupational activities'' test, like the ''quantification'' tests, would likely result in exclusion of important information from the records. An activity-based test for work-relationship could obscure the role of factors in the work environment not directly linked to production, such as violence perpetrated by employees and others or tuberculosis outbreaks. In addition, the precise causal mechanism by which an employee has been injured or made ill at work may not be known at the time of the accident, or may be misunderstood. To serve the statute's research purposes, the records must reflect not only those injuries and illnesses for which the precise causal mechanism is apparent at the time of recordation, but also those for which the mechanism is imperfectly understood. The alternative approaches to work-relationship would severely limit the usefulness of injury and illness data for research purposes, particularly research to uncover latent patterns of health impairment and disease and to establish causal connections between diseases and exposure to particular hazards.

The Occupational Safety and Health Review Commission has affirmed the approach to work-relationship taken in the former rule. *General Motors Corp., Inland Div.,* 8 O.S.H. Cas. (BNA) 2036, 2039–2040 (August 29, 1980). The issue in *General Motors* was whether the employer was required to record respiratory ailments of three employees, based on notations from the employees' treating physicians that their ailments were probably related to exposure to a chemical substance at work. The Commission rejected the employer's argument that the recordkeeping rule required recording only of illnesses directly caused by work activities, stating:

> To accept Respondent's interpretation would impose a static view of scientific knowledge. Only illnesses in which the known cause was the occupational environment would be recorded. Unknown medical correlations between disease and the workplace would be obscured by this inadequate recording obligation. Under this interpretation of the statute and regulations, OSHA and NIOSH would be significantly restrained from fulfilling their statutory obligation of making the workplace healthier. * * * [T]he primary purpose of the recording obligation is to develop information for future scientific use.

8 O.S.H. Cas. at 2040. Accordingly, OSHA believes that there is a sound legal basis for the definition of work-relationship in the final rule.

There are also sound policy justifications. The approach to ''work-relationship'' adopted in the final rule is more cost-effective than the alternative approaches and will result in more accurate injury and illness data. OSHA expects that for each reported injury or illness, employers generally will be able to apply the geographic presumption more easily and quickly than a test requiring an assessment of the relative contribution of employment and personal causes. The incremental reduction in the time necessary to complete each entry, when multiplied by the total number of entries per year, will result in a substantial cumulative saving in paperwork burden in comparison to the burden that would be imposed by the alternatives.

The geographic presumption will also produce more consistent and accurate reporting. OSHA believes that it would be difficult to measure the precise degree to which personal and occupational factors cause accidents or illnesses. Accordingly, any test requiring that job duties or tasks be ''significant'' or ''predominant'' causative factors would necessarily involve a high degree of subjective judgment. There is likely to be substantial inconsistency, both in the treatment of successive, similar cases by the same employer, and in the treatment of such cases among different employers. Moreover, such a test would fail to capture cases in which the workplace contribution to an injury or illness was imperfectly known or misunderstood at the time the case was reported. Recording all cases caused by events or exposures at work, with only limited exceptions, produces data that enables OSHA, employers and others to better understand the causal relationships present in the work environment. Although OSHA has not adopted a test for determining significant contribution by work, the final rule does include provisions to make sure that workplace aggravation of a pre-existing injury must be significant before work relationship is established (see discussion of 1904.5(b)(4)).

A number of commenters argued that because OSHA's mission is to eliminate preventable occupational injuries and illnesses, the determination of work-relatedness must turn upon whether the case could have been prevented by the employer's safety and health program. Dow expressed this view as follows:

> [T]he goal of this recordkeeping system should be to accurately measure the effectiveness of safety and health programs in the workplace. Activities where safety and health programs could have no impact on preventing or mitigating the condition should not be logged and included in the Log and Summary nor used by OSHA to determine its inspection schedule. If the event was caused by something beyond the employer's control, it should not be considered a recordable event that calls into question a facility's safety and health program. * * * Credibility in this regulation rests on whether the recorded data accurately reflects the safety and health of the workplace. Including events where the workplace had virtually no involvement undermines the credibility of the system and results in continued resistance to this regulation.

Ex. 15–335B. The law firm of Constangy, Brooks and Smith, LLC, urged OSHA to adopt the second alternative definition in the proposal because cases that are ''predominantly caused by workplace conditions'' are the ones most likely to be preventable by workplace controls. They stated, ''[s]ince OSHA's ultimate mission is the prevention of workplace injuries and illnesses, it is reasonably necessary to require recording only when the injury or illness can be prevented by the employer.'' Ex. 15–345.

OSHA believes that these comments reflect too narrow a reading of the purposes served by injury and illness records. Certainly one important purpose for recordkeeping requirements is to enable employers, employees and OSHA to identify hazards that can be prevented by compliance with existing standards or recognized safety practices. However, the records serve other purposes as well, including facilitating the research necessary to support new occupational safety and health standards and to better understand causal connections between the work environment and the injuries and illnesses sustained by employees. As discussed above, these purposes militate in favor of a general presumption of work-relationship for injuries and illnesses that result from events or exposures at the worksite, with exceptions for specific types of cases that can be safely excluded without significantly impairing the usefulness of the database.

3. The Criteria for Determining the Significance of an Injury or Illness

Section 1904.7 of the final rule sets forth the criteria to be used by employers in determining whether work-related occupational injuries and illnesses are significant, and therefore recordable. Under § 1904.7, a work-related injury or illness is significant for recordkeeping purposes if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Employers must also record any significant injury or illness diagnosed by a physician or other licensed health care professional even if it does not does not result in the one of the listed outcomes. OSHA's definition of a ''significant'' injury or illness in this context is based on two key principles discussed below. The first is that the requirement for recording only significant cases applies equally to ''injuries'' and ''illnesses'' for recordkeeping purposes. The second principle is that the criteria expressly mentioned in the Act, such as death, loss of consciousness or restriction of work, are mandatory but not exclusive indicia of significance; any significant injury or illness diagnosed by a physician or other licensed health care professional must also be recorded. These two principles are addressed below, while the definitions applicable to the specific criteria themselves, and related evidentiary issues, are discussed in the preamble explanation for section 1904.7.

a. The significant case requirement applies equally to injuries and illnesses; employers are no longer to report insignificant illnesses. OSHA distinguishes between injuries and illnesses based on the nature of the precipitating event or exposure. Cases which result from instantaneous events are generally considered injuries, while cases which result from non-instantaneous events, such as a latent disease or cumulative trauma disorder, are considered illnesses. *Id.*

Under the former recordkeeping regulations, occupational injuries had to be recorded if they were non-minor in nature; that is, if they resulted in loss of consciousness, or required medical treatment, time off work, restriction of work, lost time, or transfer to another job. 61 FR 4036. However, all occupational illnesses had to be reported, regardless of severity. *Id.* This difference in the severity threshold for recording injuries and illnesses had, in the past, been based upon the particular phrasing of section 8(c)(2) of the Act:

> The Secretary * * * shall prescribe regulations requiring employers to maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses, other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.''

29 U.S.C. 657(c)(2). Because the severity criteria appear in the clause defining ''minor injuries,'' OSHA had construed the section to require recordation of all work-related illnesses, even those that do not meet the severity

characteristics expressly applicable to ''injuries.''

OSHA has reconsidered its position in this rulemaking, and has concluded that the former rule was inappropriate in several respects. First, although the severity characteristics listed in section 8(c)(2) of the Act apply expressly to ''injuries,'' the Act contains persuasive indications that Congress also meant to require recordation only of ''significant'' illnesses, as determined by reasonable criteria. Section 24(a) states that ''[t]he Secretary shall compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries and illnesses * * * other than minor injuries requiring only first aid treatment and which do not involve medical treatment * * * .'' 29 U.S.C. 673 (a). The legislative history also supports this view. The statement of the House managers on the resolution of conflicting House and Senate bills states that:

> A Senate bill provision without a counterpart in the House amendment permitted the Secretary to require an employer to keep records and make reports on ''all work-related deaths, injuries and illnesses.'' The House receded with an amendment limiting the reporting requirement to injuries and illnesses other than of a minor nature, with a specific definition of what is not of a minor nature.

Leg. Hist. at 1190 (emphasis supplied). The former rule did not appropriately implement this intent. In the first place, OSHA's prior interpretation that section 8(c)(2) limits the applicability of the listed severity criteria only to injuries does not necessarily mean that illnesses must be recorded without regard to their significance. As a textual matter, such a reading simply leaves open the question of what, if any, severity criteria apply to illnesses.

OSHA believes that the Act does not support a different severity threshold for injuries than for illnesses. OSHA is now persuaded that its prior reading of section 8(c)(2) placed too much emphasis on the fact that the severity criteria modify the word ''injuries'' in the clause, ''other than minor injuries requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion or transfer to another job.'' 29 U.S.C. 657(c)(2). Congress' failure to list specific severity criteria for illnesses, as it did for injuries, does not, in itself, compel the inference that two different sets of criteria must apply. Congress meant to limit recordation to significant injuries and illnesses alike, and absent strong indications to the contrary, it is reasonable to presume that Congress meant the same severity threshold to apply to both conditions.

In addition, there are strong policy reasons for avoiding a distinction between injuries and illnesses based on severity. OSHA explained in the proposal that the current distinction between injuries and illnesses based on the nature of the precipitating event has caused some degree of confusion and uncertainty. Using one set of criteria for severity means that employers will not have to decide whether a case is an injury or an illness in determining its recordability. This simplifies the recordkeeping system, resulting in more accurate injury and illness data while reducing the recordkeeping burden for employers who are required to maintain records (61 FR 4036). Employers will continue to classify each recordable case as either an injury or an illness on the OSHA 300 Log, but the decision no longer has any effect on whether or not the case must be recorded.

b. The criteria listed in the Act are mandatory but not exclusive indicia of significance. A final issue relating to significance is the effect to be given a finding that an injury or illness results in, or does not result in, one of the outcomes listed in the statute: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. The implication arising from the wording of section 8(c)(2) and section 24 is that if an injury or illness results in one of the listed outcomes, it must be deemed significant for recordkeeping purposes. This position, which reflects OSHA's longstanding, consistent interpretation of the statute, was not seriously questioned in the rulemaking. Accordingly, the final rule requires that a work-related injury or illness be recorded if it results in one of the outcomes mentioned in the statute.

The final rule also requires that a case be recorded, whether or not it results in one of the listed outcomes, if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional. 29 CFR 1904.10(b). Nothing in the statute compels the conclusion that the criteria mentioned in sections 8 and 24 are the exclusive indicia of severity for recordkeeping purposes. Congress directed the Secretary to collect data on ''all disabling, serious, or significant injuries and illnesses, whether or not involving loss of time from work,'' other than minor injuries * * * which [do not result in one of the listed outcomes]. 29 U.S.C. 673(a). A reasonable reading of this language is that while an injury that meets one of the listed criteria is non-minor and must be recorded, the converse does not necessarily follow. An injury or illness may reasonably be viewed as significant, and therefore recordable, even if it is not immediately followed by death, loss of consciousness, or job-related disability. For example, an employee diagnosed with an unquestionably serious work-related disease, such as asbestosis or mesothelioma, may forego or postpone medical treatment and continue temporarily to perform his or her normal job duties. Focusing exclusively on the basic criteria listed in the statute in cases such as these could result in underrecording of serious cases. Accordingly, the final rule requires employers to record any significant injury or illness that is diagnosed. A thorough discussion of this requirement, including a definition of what constitutes a ''significant'' injury or illness for this purpose, is contained in the preamble discussion of section 1904.7.

Because the provisions of the final recordkeeping rule, as explained above and in the subsequent sections of this preamble, are reasonably related to the statutory purposes, the Secretary finds that the rule is necessary to carry out her responsibilities under the Act. The rule is therefore a valid exercise of the Secretary's general rulemaking authority under Section 8. Cf. *Mourning* v. *Family Publications Services*, 411 U.S. 356.

VII. Summary and Explanation

The following sections discuss the contents of the final 29 CFR Part 1904 and section 1952.4 regulations. OSHA has written these regulations using the plain language guidance set out in a Presidential Memo to the heads of executive departments and agencies on June 1, 1998. The Agency also used guidance from the Plain Language Action Network (PLAN), which is a government-wide group working to improve communications from the Federal government to the public, with the goals of increasing trust in government, reducing government costs, and reducing the burden on the public. For more information on PLAN, see their Internet site at http://www.plainlanguage.gov/.

The plain language concepts encourage government agencies to adopt a first person question and answer format, which OSHA used for the Part 1904 rule. The rule contains several types of provisions. Requirements are described using the ''you must * * *'' construction, prohibitions are described using ''you may not * * *'', and optional actions that are not

requirements or prohibitions are preceded by ''you may * * *.'' OSHA has also included provisions to provide information to the public in the rule.

Subpart A. Purpose

The Purpose section of the final rule explains why OSHA is promulgating this rule. The Purpose section contains no regulatory requirements and is intended merely to provide information. A Note to this section informs employers and employees that recording a case on the OSHA recordkeeping forms does not indicate either that the employer or the employee was at fault in the incident or that an OSHA rule has been violated. Recording an injury or illness on the Log also does not, in and of itself, indicate that the case qualifies for workers' compensation or other benefits. Although any specific work-related injury or illness may involve some or all of these factors, the record made of that injury or illness on the OSHA recordkeeping forms only shows three things: (1) that an injury or illness has occurred; (2) that the employer has determined that the case is work-related (using OSHA's definition of that term); and (3) that the case is non-minor, *i.e.,* that it meets one or more of the OSHA injury and illness recording criteria. OSHA has added the Note to this first subpart of the rule because employers and employees have frequently requested clarification on these points.

The following paragraphs describe the changes OSHA has made to the Purpose provisions in Subpart A of the final rule, and discusses the Agency's reasons for these changes. Proposed section 1904.1 of Subpart A contained three separate paragraphs. Proposed paragraph (a) stated that the purpose of the recordkeeping rule (Part 1904) was ''to require employers to record and report work-related injuries, illness and fatalities.'' It also described several ways in which such records were useful to employers, employees, OSHA officials, and researchers evaluating and identifying occupational safety and health issues.

Proposed paragraph (b) noted that the recording of a job-related injury, illness or fatality did not necessarily impute fault to the employer or the employee, did not necessarily mean that an OSHA rule had been violated when the incident occurred, and did not mean that the case was one for which workers' compensation or any other insurance-related benefit was appropriate. The third paragraph in proposed section 1904.1, proposed paragraph (c), stated that the regulations in Part 1904 had been developed ''in consultation with the Secretary of Health and Human Services'' (HHS), as required by Section 24(a) of the Act.

In the final rule, OSHA has moved much of this material, which was explanatory in nature, from the regulatory text to the preamble. This move has simplified and clarified the regulatory text. The final rule's Purpose paragraph simply states that: ''The purpose of this rule (Part 1904) is to require employers to record and report work-related fatalities, injuries and illnesses.'' This final rule statement is essentially identical to the first sentence of the proposed Purpose section. It clearly and succinctly states OSHA's reasons for issuing the final rule.

A number of commenters (see, *e.g.*, Exs. 25; 15: 199, 305, 313, 346, 348, 352, 353, 375, 418, 420) specifically addressed proposed section 1904.1. The principal points raised by these commenters concerned: (1) Statements in proposed paragraph (a) about the quality of the data captured by the records; (2) proposed paragraph (b)'s discussion of the relationship between OSHA recordkeeping and employer/employee fault, violations of OSHA rules, and the workers' compensation system, and (3) the statement in proposed paragraph (c) that discussed OSHA's consultation with the Secretary of Health and Human Services in developing this rule. Each of these issues is discussed in detail below.

Most comments on proposed paragraph (a) took issue with the language that OSHA used to describe the statistical use of the records (see, *e.g.*, Exs. 25, 15: 305, 346, 348, 375, 420). Typical of these comments is one from the National Association of Manufacturers: ''We urge OSHA to remove the following unverified and conclusory statement from § 1904.1(a): ''The records: * * * accurately describe the nature of occupational safety and health problems for the Nation, State or establishment'' (Exs. 25, 15: 305). OSHA did not intend this statement to attest with certainty to the validity of national occupational statistics. Proposed section 1904.1(a) merely paraphrased section 2(b) of the Act, which states that such records ''will help achieve the objectives of this Act and accurately describe the nature of the occupational safety and health problem.'' In response to commenters, OSHA has simplified the final rule by deleting the proposed listing of the functions of the records required by this rule.

As discussed earlier, proposed paragraph (b) stated that the recording of a case did not ''necessarily mean that the employer or employee was at fault, that an OSHA standard was violated, or that the employee is eligible for workers' compensation or other insurance benefits.'' The last sentence of proposed paragraph (b) described the various types of workplace events or exposures that may lead to a recordable injury or illness.

A number of commenters agreed with the proposed statements on fault, compliance, and the relationship between the recording of a case and workers' compensation or other insurance (see, *e.g.*, Exs. 25, 15: 305, 346, 420). Employers have frequently asked OSHA to explain the relationship between workers' compensation reporting systems and the OSHA injury and illness recording and reporting requirements. As NYNEX (Ex. 15: 199) noted,

> [t]he issue of confusion between OSHA recordkeeping and workers' compensation/insurance requirements cannot be totally eliminated as the workers' compensation criteria vary somewhat from state to state. There will always be some differences between OSHA recordability and compensable injuries and illnesses. The potential consequences of these differences can be minimized, however, if all stakeholders in the recordkeeping process (i.e., employers, employees, labor unions, OSHA compliance officials) are well informed that OSHA recordability does not equate to compensation eligibility. This can be facilitated by printed reminders on all of the OSHA recordkeeping documents (*e.g.*, forms, instructions, pamphlets, compliance directives, etc.).

As NYNEX observed, employers must document work-related injuries and illnesses for both OSHA recordkeeping and workers' compensation purposes. Many cases that are recorded in the OSHA system are also compensable under the State workers' compensation system, but many others are not. However, the two systems have different purposes and scopes. The OSHA recordkeeping system is intended to collect, compile and analyze uniform and consistent nationwide data on occupational injuries and illnesses. The workers' compensation system, in contrast, is not designed primarily to generate and collect data but is intended primarily to provide medical coverage and compensation for workers who are killed, injured or made ill at work, and varies in coverage from one State to another.

Although the cases captured by the OSHA system and workers' compensation sometimes overlap, they often do not. For example, many injuries and illnesses covered by workers' compensation are not required to be recorded in the OSHA records. Such a situation would arise, for example, if an employee were injured on the job, sent to a hospital emergency

room, and was examined and x-rayed by a physician, but was then told that the injury was minor and required no treatment. In this case, the employee's medical bills would be covered by workers' compensation insurance, but the case would not be recordable under Part 1904.

Conversely, an injury may be recordable for OSHA's purposes but not be covered by workers' compensation. For example, in some states, workers' compensation does not cover certain types of injuries (*e.g.*, certain musculoskeletal disorders) and certain classes of workers (*e.g.*, farm workers, contingent workers). However, if the injury meets OSHA recordability criteria it must be recorded even if the particular injury would not be compensable or the worker not be covered. Similarly, some injuries, although technically compensable under the state compensation system, do not result in the payment of workers' compensation benefits. For example, a worker who is injured on the job, receives treatment from the company physician, and returns to work without loss of wages would generally not receive workers' compensation because the company would usually absorb the costs. However, if the case meets the OSHA recording criteria, the employer would nevertheless be required to record the injury on the OSHA forms.

As a result of these differences between the two systems, recording a case does not mean that the case is compensable, or vice versa. When an injury or illness occurs to an employee, the employer must independently analyze the case in light of both the OSHA recording criteria and the requirements of the State workers' compensation system to determine whether the case is recordable or compensable, or both.

The American Federation of Labor and Congress of Industrial Organizations (AFL–CIO) urged OSHA to emphasize the no-fault philosophy of the Agency's recordkeeping system, stating:

> The AFL–CIO is encouraged by some provisions currently in the proposed rulemaking which indirectly address underreporting. But, we believe the Agency must take it one step further. To adequately address this problem, the Agency must encourage employers to adopt a ''no fault system'' philosophy in the workplace and remove barriers which discourage the reporting of injuries and illnesses by employees. This philosophy will not only encourage workers to report injuries and illnesses, but also encourage those individuals (*e.g.*, supervisors, safety personnel) responsible for recording this data to report all recordable incidents (Ex. 15: 418).

OSHA believes that the note to the Purpose paragraph of the final rule will allay any fears employers and employees may have about recording injuries and illnesses, and thus will encourage more accurate reporting. Both the Note to Subpart A of the final rule and the new OSHA Form 300 expressly state that recording a case does not indicate fault, negligence, or compensability.

The Workplace Health and Safety Council, the American Coke and Coal Chemicals Institute, and the National Oilseed Processors Association (Exs. 15: 313, 352, 353) all urged OSHA to improve on this paragraph of the proposed rule in two ways. First, these commenters asked OSHA to remove the word ''necessarily'' from the language of proposed paragraph (b), which stated that recording did not ''necessarily mean'' that anyone was at fault, that a standard had been violated, or that the case was compensable:

> The qualification ''necessarily'' robs the [proposed] sentences of their meaning and makes them inaccurate. Using the word erroneously implies that merely listing an injury sometimes does mean that the employer or employee was at fault, that an OSHA standard was violated, or that the employee is eligible for workers' compensation. Clearly, this is not what OSHA intended to convey. Indeed, the word ''necessarily'' may actually worsen the problem OSHA seeks to solve, for attorneys and consultants reading the proposed provision might well advise employers that the provision actually endorses some uses of a listing against an employer.
>
> OSHA should, therefore, delete the word ''necessarily. * * *'' Alternatively, the sentence in the regulation should read: ''That an injury or illness is recordable has no bearing on whether the employer or employee was at fault, an OSHA standard violated, or the employee is eligible for workers' compensation. * * *'' The legend in the form would be similarly changed (Exs. 15: 313, 352, 353).

These three commenters (Exs. 15: 313, 352, 353) also suggested the following:

> (a) much preferred additional solution, would be for OSHA to promulgate in the final version a provision that makes inadmissible in all proceedings, both those under the OSH Act and those under any state or federal law, the entries in Form OSHA 300 and 301 as evidence of fault or culpability. Such a regulation would give employers the necessary assurance that their recordkeeping forms would not be used against them. Injured employees would lose nothing by this, for they could still be permitted to prove the fact of injury, its work-relatedness, and its consequence, with normal proof. They would simply not be permitted to introduce the forms as evidence of culpability. Such a rule would implement, be consistent with, and be authorized by Section 4(b)(4) of the Act, which prohibits the Act from affecting workers' compensation and tort schemes.

OSHA agrees with the point made by these commenters about the proposed rule's use of the word ''necessarily.'' Accordingly, the word necessarily has been deleted from the Note to the Purpose paragraph of the final rule. However, OSHA has rejected the suggestion made by these commenters to limit the admissibility of the forms as evidence in a court proceeding. Such action is beyond the statutory authority of the agency, because OSHA has no authority over the courts, either Federal or State.

In the proposal, the no-fault statement was followed by a listing of the various causes of recordable injuries and illnesses: ''Recordable workplace injuries and illnesses result from a variety of workplace events or exposures, including but not limited to: accidents, exposure to toxic materials or harmful physical agents, intentional acts of violence, or naturally occurring events such as a tornado or earthquake.'' The American Petroleum Institute (API) (Ex. 15: 375) objected to this proposed sentence describing the various examples of injury and illness causality, stating:

> To help the system have much-needed credibility, ''regardless of fault or preventability'' should not be applied beyond reasonable limits. Specifically, it shouldn't mean ''tornado or earthquake'' or other sudden, unforeseen catastrophic events over which the employer clearly could not have any control. Employers can, however, exercise control to prevent injury from some types of naturally occurring events. The terms ''tornado or earthquake'' should be replaced with more reasonable examples.

In the final rule, OSHA has decided to eliminate the sentence of examples to make the regulatory text clearer and more concise. However, OSHA notes that many circumstances that lead to a recordable work-related injury or illness are ''beyond the employer's control,'' at least as that phrase is commonly interpreted. Nevertheless, because such an injury or illness was caused, contributed to, or significantly aggravated by an event or exposure at work, it must be recorded on the OSHA form (assuming that it meets one or more of the recording criteria and does not qualify for an exemption to the geographic presumption). This approach is consistent with the no-fault recordkeeping system OSHA has adopted, which includes work-related injuries and illnesses, regardless of the level of employer control or non-control involved. The issue of whether different

types of cases are deemed work-related under the OSHA recordkeeping rule is discussed in the Legal Authority section, above, and in the work-relationship section (section 1904.5) of this preamble.

In a comment on proposed paragraph (a), the National Association of Manufacturers (NAM) (Exs. 25, 15: 305) argued that the OSHA recordkeeping system should only collect information on

''the most significant hazards, those that lead to the most significant injuries and illnesses * * *'' and that the purpose paragraph of the final rule be revised to state ''The purpose of this Part is to require employers to record and report disabling, serious and significant work-related injuries and illnesses, and work-related fatalities.''

OSHA does not agree with this interpretation of the OSH Act. As discussed in the Legal Authority section, above, Congress stated clearly that the OSHA recordkeeping system was intended to capture ''work-related deaths, injuries and illnesses, *other than minor injuries* requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job'' (Sec. 8(c)(2)) (emphasis added). The words ''disabling, serious, and significant,'' suggested by NAM, are at variance with Congress' clear intent. OSHA concludes that the guidance given by Congress—that employers should record and report on work-related deaths, and on injuries and illnesses other than minor injuries, establishes the appropriate recording threshold for cases entered into the OSHA recordkeeping system.

A few commenters recommended that OSHA delete paragraph (c) of the proposed Purpose section (see, *e.g.*, Exs. 25, 15: 305, 346, 348, 420), and in the final rule, OSHA has done so because the paragraph merely attested to OSHA's cooperation with other agencies on this rule. Although the rule has, in fact, been developed in cooperation with the Department of Health and Human Services, and specifically with the National Institute for Occupational Safety and Health (NIOSH), there is no need to include this information in the regulatory text itself.

Subpart B. Scope

The coverage and partial exemption provisions in Subpart B of the final rule establish which employers must keep OSHA injury and illness records at all times, and which employers are generally exempt but must keep records under specific circumstances. This subpart contains sections 1904.1 through 1904.3 of the final rule.

OSHA's recordkeeping rule covers many employers in OSHA's jurisdiction but continues to exempt many employers from the need to keep occupational injury and illness records routinely. This approach to the scope of the rule is consistent with that taken in the former recordkeeping rule. Whether a particular employer must keep these records routinely depends on the number of employees in the firm and on the Standard Industrial Classification, or SIC code, of each of the employer's establishments. Employers with 10 or fewer employees are not required to keep OSHA records routinely. In addition, employers whose establishments are classified in certain industries are not required to keep OSHA records under most circumstances. OSHA refers to establishments exempted by reason of size or industry classification as ''partially exempt,'' for reasons explained below.

The final rule's size exemption and the industry exemptions listed in non-mandatory Appendix A to Subpart B of the final rule do not relieve employers with 10 or fewer employees or employers in these industries from *all* of their recordkeeping obligations under 29 CFR Part 1904. Employers qualifying for either the industry exemption or the employment size exemption are not routinely required to record work-related injuries and illnesses occurring to their employees, that is, they are not normally required to keep the OSHA Log or OSHA Form 301. However, as sections 1904.1(a)(1) and 1904.2 of this final recordkeeping rule make clear, these employers must still comply with three discrete provisions of Part 1904. First, all employers covered by the Act must report work-related fatalities or multiple hospitalizations to OSHA under § 1904.39. Second, under § 1904.41, any employer may be required to provide occupational injury and illness reports to OSHA or OSHA's designee upon written request. Finally, under § 1904.42, any employer may be required to respond to the Survey of Occupational Injuries and Illnesses conducted by the Bureau of Labor Statistics (BLS) if asked to do so. Each of these requirements is discussed in greater detail in the relevant portion of this summary and explanation.

Section 1904.1 Partial Exemption for Employers With 10 or Fewer Employees

In § 1904.1 of the final rule, OSHA has retained the former rule's size-based exemption, which exempts employers with 10 or fewer employees in all industries covered by OSHA from most recordkeeping requirements. Section 1904.1, ''Partial exemption for employers with 10 or fewer employees,'' states that:

(a) Basic requirement.

(1) If your company had ten (10) or fewer employees at all times during the last calendar year, you do not need to keep OSHA injury and illness records unless OSHA or the BLS informs you in writing that you must keep records under § 1904.41 or § 1904.42. However, as required by § 1904.39, all employers covered by the OSH Act must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees.

(2) If your company had more than ten (10) employees at any time during the last calendar year, you must keep OSHA injury and illness records unless your establishment is classified as a partially exempt industry under § 1904.2.

(b) Implementation.

(1) Is the partial exemption for size based on the size of my entire company or on the size of an individual business establishment?

The partial exemption for size is based on the number of employees in the entire company.

(2) How do I determine the size of my company to find out if I qualify for the partial exemption for size?

To determine if you are exempt because of size, you need to determine your company's peak employment during the last calendar year. If you had no more than 10 employees at any time in the last calendar year, your company qualifies for the partial exemption for size.

The Size-Based Exemption in the Former Rule

The original OSHA injury and illness recording and reporting rule issued in July 1971 required all employers covered by the OSH Act to maintain injury and illness records. In October 1972, an exemption from most of the recordkeeping requirements was put in place for employers with seven or fewer employees. In 1977, OSHA amended the rule to exempt employers with 10 or fewer employees, and that exemption has continued in effect to this day. All employers, however, have always been required to report fatalities and catastrophes to OSHA and to participate in the BLS survey, if requested to do so.

As discussed in the Legal Authority section of this preamble, the 10 or fewer employee threshold is consistent with Congressional intent: the 1977 **Federal Register** notice announcing the new exemption cited the Department of Labor appropriations acts for fiscal years 1975 and 1976, which exempted employers having 10 or fewer employees from most routine recordkeeping requirements, and Section 8(d) of the Act, as the major reasons for raising the exemption size threshold from seven to 10 employees. The 1977 Notice stated that the new size

threshold appropriately balanced the interest of small businesses while preserving the essential purposes of the recordkeeping scheme:

> The [exemption] has been carefully designed to carry out the mandate of section 8(d) without impairing the Act's basic purpose. Thus, the [exemption] will not diminish the protections afforded employees under the Act because all employers * * * remain subject to the enforcement provisions of the Act. The [exemption] will continue to require * * * small employers * * * to report fatalities and multiple hospitalizations and to participate in the BLS annual survey when selected to do so (42 FR 38568 (July 29, 1977)).

The Size-Based Exemption in the Final Rule

The final rule published today maintains the former rule's partial exemption for employers in all covered industries who have 10 or fewer employees. Under the final rule (and the former rule), an employer in any industry who employed no more than 10 employees at any time during the preceding calendar year is not required to maintain OSHA records of occupational illnesses and injuries during the current year unless requested to do so in writing by OSHA (under § 1904.41) or the BLS (under § 1904.42). If an employer employed 11 or more people at a given time during the year, however, that employer is not eligible for the size-based partial exemption.

The Size-Based Exemption in the Proposed Rule

In the 1996 proposal, OSHA contemplated raising the threshold for the size-based exemption to 19 employees for all employers except those in the construction industry. In proposing this more extensive exemption, OSHA stated that BLS Annual Survey data appeared to indicate that small businesses in this size category had proportionately fewer injuries and illnesses and were thus safer places to work. However, since the proposal, OSHA has analyzed the record evidence on this point and now believes that small businesses are not generally likely to be less hazardous than larger businesses and, in fact, are likely, as a general matter, to be more hazardous than large businesses. OSHA's reasoning is described below.

Comments to the record make clear that the recording of fewer injuries and illnesses by very small firms could have many causes other than a lower level of hazards. For example, the National Institute for Occupational Safety and Health (NIOSH) submitted a comment to the record that described numerous studies based on fatality and workers' compensation data that suggest that smaller businesses are at least as hazardous as larger businesses (Ex. 15: 407). NIOSH also argued that the BLS estimated injury and illness incidence rates for small employers may be erroneously low, i.e., may be the result of underreporting rather than a lower injury rate. The following comment from NIOSH explains these concerns:

> From a public standpoint, NIOSH does not support a partial exemption from recordkeeping requirements for employers in the construction industry with 10 or fewer employees, and non-construction employers with 19 or fewer employees. Research indicates significant safety and health problems in ''small'' establishments which employ a substantial proportion of the workforce. One-quarter of the civilian, full-time workforce is employed in establishments with fewer than 25 employees (Oleinick et al. 1995).
>
> The Occupational Safety and Health Administration (OSHA) notes [in the proposal to the recordkeeping rule] that ''the Annual Survey data show that small employers generally experience much lower patterns of injuries and illnesses than medium size firms.'' However, recent literature comparing Annual Survey data and workers compensation data questions the validity of the estimated rates for small employers obtained through the Bureau of Labor Statistics (BLS) Annual Survey. Moreover, fatal and nonfatal work injuries are a significant risk among small businesses in hazardous industries and many industries with high fatal and nonfatal injury rates are comprised primarily of small companies. In addition, NIOSH research indicates that small companies have less access to safety and health programs that might reduce injuries and illnesses than larger companies [NIOSH 1988a].
>
> Though the Annual Survey of Occupational Injuries and Illnesses has consistently reported that employers with fewer than 20 employees have significantly lower rates of injuries and illnesses, there is concern that these low incidence rates are an artifact of the reporting system. Analysis of compensable injuries with >7 missed workdays in Michigan indicates that the pattern of lower injury rates among small employers is not consistent across industry divisions. Though the services and trade industry divisions show a marked decline in compensable injury rate for small size firms, the higher risk industries of construction and transportation/utilities show relatively little decline in the compensable injury rate for employers with fewer than 25 employees. Comparison of the demographic characteristics of the Michigan work force with the demographic characteristics of injured workers suggest that high risk groups (*e.g.*, males, younger workers [<35 years of age], construction, manufacturing, transportation, and blue collar workers) are over-represented among workers injured in small size firms (<25 workers). Using cumulative lost work time as a surrogate for severity of injury, the Michigan study also found that with one exception (construction), compensable injuries to workers in small firms were at least as serious as compensable injuries in larger firms [Oleinick et al. 1995] (Ex. 15: 407).

Since publication of the recordkeeping proposal, OSHA has done considerable research into the issue of fatality, injury, and illness rates in small companies. The results of this research also point to underreporting, rather than safer workplaces, as a likely reason for the lower-than-average injury and illness numbers reported by small employers. The most telling evidence that injury and illness underreporting is prevalent among small firms is the substantial discrepancy between the fatality rates in these firms and their injury and illness rates.

Most professionals agree that occupational fatality data are more reliable than occupational injury and illness data, primarily because fatalities are more likely to be reported than injuries. The work-related BLS fatality data appear to confirm this belief, showing that although businesses with fewer than 10 employees account for only 4% of the total workforce, they account for 28% of occupational fatalities. Furthermore, although businesses with fewer than 20 employees comprise only 26% of the total workforce, they account for 36% of all occupational fatalities (see Mendeloff, ''Using OSHA Accident Investigations to Study Patterns in Work Fatalities,'' *J. Occup. Med* 32: 1117, 1119 (1990) (Ex. 15: 407 F)). These data strongly suggest that very small businesses are disproportionately hazardous places to work.

Many safety and health professionals also believe that injuries and illnesses are substantially underreported by small employers (see, *e.g.*, Exs. 4, 5, 15: 407). However, the occupational injury and illness data reported by employers to the BLS in connection with its Annual Survey of Occupational Injuries and Illnesses show lower rates of injuries and illnesses for firms in the smallest size classes than for those in larger classes. In an effort to understand why smaller firms might have lower injury and illness incidence rates, the authors of one study found that: (1) occupational fatality rates were highest in businesses with fewer than 50 employees; (2) businesses with fewer than 50 employees were least likely to have occupational health services available; and (3) lost workday injury rates in several major industry categories are highest (i.e., the injuries are most severe) in these facilities. From these findings, the authors concluded:

It is difficult to imagine a set of workplace conditions in small establishments that would lead simultaneously to lower injury rates, higher fatality rates, and equal, or greater, injury severity measured by missed work time, especially since these establishments were less likely to provide injury prevention and safety services (Oleinick *et al.,* ''Establishment Size and Risk of Occupational Injury,'' *Am. J. Med.* 28(1): 2–3 (1995) (Ex. 15: 407 N)).

After considering a number of explanations that might explain this apparent incongruity, these authors rejected all explanations except one—underreporting by small firms:

With the rejection of alternative explanations, there is a strong likelihood of underreporting as the explanation, and we estimate that the annual [BLS] survey substantially undercounts injuries in small establishments (Oleinick et al., 1995 (Ex. 15: 407 N)).

NIOSH agrees, noting that ''recent literature comparing Annual Survey data and workers compensation data questions the validity of the estimated rates for small employers obtained through the BLS Annual Survey'' (Ex.15: 407). Thus, the apparent discrepancy between the high fatality rate in the smallest firms (i.e., those with fewer than 20 employees) and the low rates of injuries and illnesses reported by those same firms is likely to be the result of underreporting rather than lower relative hazards.

A *Wall Street Journal* (Feb. 3, 1994) computer analysis of more than 500,000 Federal and State safety-inspection records came to the same conclusions, i.e., that employees of small businesses are at greater risk of exposure to workplace hazards than employees of larger businesses, and that BLS data for small firms seriously understate injuries and illnesses in such firms. From 1988 through 1992, the analysis found an incidence of 1.97 deaths per 1,000 workers at workplaces with fewer than 20 employees, compared with an incidence of just 0.004 deaths per 1,000 workers at workplaces with more than 2,500 workers. Thus, an employee's risk of death was approximately 500 times higher at the smallest businesses compared with the risk at the largest businesses. Similarly, while one in six employees at small businesses worked in an area cited for a serious safety violation, only one in 600 did so at the largest businesses. This means that employees in small businesses are 100 times more likely to be exposed to a serious hazard at work than those in the largest businesses, a finding that is consistent with the higher fatality rates in very small workplaces (*Wall Street Journal,* February 3, 1994).

In the final rule, OSHA has decided to continue the Agency's longstanding practice of partially exempting employers with 10 or fewer employees from most recordkeeping requirements, but not to extend the exemption to non-construction businesses with 19 or fewer employees, as was proposed. OSHA has determined that increasing the number of employers partially exempted is not in the best interests of the safety and health of their employees. First, as NIOSH's comments (Ex. 15: 407), the Oleinick et al. study (1995), the Mendeloff article (1990), and the *Wall Street Journal* study (1994) all indicate, businesses with 20 or fewer employees tend to be relatively hazardous places to work, and their employees have a disproportionately high risk of work-related death. Second, as NIOSH and others point out, there is reason to believe that these very small workplaces also experience disproportionately high numbers of injuries and illnesses, and that the BLS statistics for these workplaces substantially underreport the extent of job-related incidents at these establishments (Ex. 15: 407, Oleinick et al. 1995, *Wall Street Journal* 1994 (Ex. 15: 407 N). Finally, under the 10 or fewer employee partial exemption threshold, more than 80% of employers in OSHA's jurisdiction are exempted from routinely keeping records. Increasing the threshold for the size exemption would deprive even more employers and employees of the benefits of the information provided by these injury and illness records and reduce the number of establishments where the records can be of use to the government during an on-site visit. OSHA also believes that keeping the OSHA Log and Incident Report is important for national statistical purposes.

Size Exemption Threshold for Construction Companies

The final rule also retains the former rule's size exemption threshold (10 or fewer employees) for construction employers. OSHA proposed separate size thresholds for construction and nonconstruction firms, i.e., the Agency proposed to exempt firms in construction with 10 or fewer employees and non-construction firms with 19 or fewer employees from routine recordkeeping requirements. Comments on this aspect of the proposal were mixed. Some commenters agreed that OSHA should continue the exemption for construction employers with ten or fewer employees (see, *e.g.*, Exs. 15: 145, 170, 197, 288). Other commenters urged that employers in the construction industry not be exempted from recordkeeping at all (see, *e.g.*, Exs. 15: 62, 74, 414). For example, Robert L. Rowan, Jr. stated that:

[s]mall contractors often lack adequate safety knowledge, programs and safeguards to prevent injuries and illnesses. I believe that data obtained from these small contractors will point to a trend that these employees have a relatively high frequency of injuries that are related to tasks involving construction work such as excavations and fall hazards. I suggest that there be no exemptions for recordkeeping for any construction employer (Ex. 15: 62).

Other commenters asked OSHA to use a single size threshold for employees in all industries and to raise the size exemption threshold to more than 19 employees across the board (see, *e.g.*, Exs. 15: 67, 304, 312, 344, 437). For example, the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) remarked:

The recordkeeping standard is considered to be a horizontal standard, which by definition, means that it covers all industries. SMACNA members own and operate sheet metal fabrication shops where they design and create the products which are then installed in the construction process, including duct work and all types of specialty and architectural sheet metal. Sheet metal fabrication shops fall under the manufacturing classification and are therefore subject to general industry standards. SMACNA contractors also construct with the components that they fabricate. Therefore, as contractors they must also comply with the OSHA standards for construction.

OSHA's arbitrary two tier record keeping requirement will cause confusion among SMACNA contractors as to which classification they are under and when they have to maintain records. With the volumes of regulations that contractors already must comply with, it is only logical that if OSHA truly wishes to simplify its recordkeeping requirements it would create a uniform standard for all industries. * * *

SMACNA urges OSHA to create a uniform horizontal standard and increase the exemption for the construction industry to cover employers with 19 or fewer employees (Ex. 15: 116).

After a review of the record and reconsideration of this issue, OSHA agrees that there should be only one size exemption threshold across all industries and finds that the threshold should be 10 or fewer employees. This threshold comports both with longstanding Agency practice and Congressional intent. Further, as discussed above, OSHA finds that extending this threshold to include firms with 11 to 19 employees is not warranted by the evidence. Firms in this size range have a disproportionately large number of fatalities, and their

lower reported injury and illness rates are likely to be the result of underreporting rather than fewer hazards. Thus, companies in this size class need the information their OSHA records provide to improve conditions in their workplaces and to protect their employees from job-related injuries, illnesses, and deaths. Likewise, OSHA does not believe that it would be appropriate to remove the partial exemption for construction employers with 10 or fewer employees, as some commenters suggested (see, *e.g.*, Exs. 15: 67, 304, 312, 344, 437). Using the same size threshold for all OSHA-covered industries also makes the rule simpler and is more equitable from industry to industry.

Comments on Raising the Size-Based Exemption

Many commenters supported raising the size-based exemption threshold (see, *e.g.*, Exs. 27, 15: 26, 27, 67, 102, 123, 145, 170, 173, 182, 198, 247, 288, 304, 359, 375, 378, 392, 401, 437). For example, the American Society of Safety Engineers (ASSE) remarked:

> ASSE supports exempting businesses under twenty (20) employees from the standard with some specific industry exemptions. Enforcing this regulation for businesses of less than twenty (20) employees would be detrimental to small business from the recordkeeping/bureaucracy perspective, and may not generate any significant data. ASSE wishes to clarify, however, that this position should not be interpreted to mean that small businesses should be exempted from safety and health laws. We believe that all employees are entitled to an equal level of safety and health regardless of the size of their place of employment. Exempting a paperwork requirement does not change this level of commitment (Ex. 15: 182).

Two commenters suggested that OSHA use an even higher threshold for determining the size-based exemption (Exs. 15: 357, 408). The Synthetic Organic Chemical Manufacturers Association (SOCMA) stated ''* * * SOCMA believes that OSHA should modify the small employer exemption by increasing it to 40 employees. This alternative approach would reduce the employer paperwork burden while improving the accuracy of injury and illness information'' (Ex. 15:357). Similarly, the American Dental Association (ADA) commented ''The ADA suggests that OSHA expand the proposed exemption from 'fewer than 20 employees' to 'fewer than 25 employees.' This would bring the small-employer exception into conformity with many federal and state employment laws. It would also serve as a more reasonable dividing line between small employers and others'' (Ex. 15:408).

Some commenters, however, objected to OSHA's proposed exemption of employers in the 11 to 20 employee size range (see, *e.g.*, Exs. 15:62, 369, 379, 407, 415, 418). Among these was the International Brotherhood of Teamsters (IBT), which stated:

> IBT maintains the importance of recording of all occupational injuries and illnesses. For that same reason, International Brotherhood of Teamsters does not support increasing the trigger for non-construction employers from ten to nineteen employees. Although injuries due to preventable causes occur in all types and sizes [of businesses], a disproportionately high number of fatalities occur in the smallest businesses. According to an analysis of BLS and OSHA data, then assistant secretary of labor, Joe Dear, told the House of Representative's Small Business Committee, ''Businesses with fewer than eleven workers account for 33 percent of all fatalities even though they account for less than 20 percent of employees.'' According to a study by the National Federation of Independent Businesses, ''generally businesses with fewer employees do less to improve safety than those with more.'' Large corporations can afford the full-time services of a safety engineer and industrial hygienist, whereas often small firms cannot. IBT contends that it is up to OSHA to protect the workers and institute prevention measures. The use of required recordkeeping of data helps to reach that aim by providing hard data. If the data is going to be used as a prevention tool, it must be collected from the entire workforce not just a subgroup (Ex. 15:369).

Reliance on a single size exemption threshold also addresses the point made by SMACNA: that many small employers perform construction work and also manufacture products and would therefore be uncertain, if the rule contained two size exemption thresholds, as to whether they are required to keep records or not.

OSHA's proposed rule stated that the size exemption would apply to employers based on the number of employees employed by the employer ''for the entire previous calendar year.'' The Office of Advocacy of the Small Business Administration (SBA) observed (Ex. 15:67, p. 4) that this statement could be interpreted in various ways, and expressed concern that it could be taken to refer to the total number of employees who had been employed at one time or another during the year rather than the total employed at any one time of the year. The SBA office recommended that OSHA provide clearer guidance. OSHA agrees with the SBA that the proposed regulatory language was ambiguous. Accordingly, the final rule clarifies that the 10 or fewer size exemption is applicable only if the employer had fewer than 11 employees at all times during the previous calendar year. Thus, if an employer employs 11 or more people at any given time during that year, the employer is not eligible for the small employer exemption in the following year. This total includes all workers employed by the business. All individuals who are ''employees'' under the OSH Act are counted in the total; the count includes all full time, part time, temporary, and seasonal employees. For businesses that are sole proprietorships or partnerships, the owners and partners would not be considered employees and would not be counted. Similarly, for family farms, family members are not counted as employees. However, in a corporation, corporate officers who receive payment for their services are considered employees.

Consistent with the former rule, the final rule applies the size exemption based on the total number of employees in the firm, rather than the number of employees at any particular location or establishment. Some commenters suggested that the size exemption should be based on the number of employees in each separate establishment rather than the entire firm (see, *e.g.*, Exs. 15: 67, 201, 437). For example, Caterpillar Inc. (Ex. 15: 201) noted:

> We do object to the note to [proposed] paragraph 1904.2(b)(2) which bases size exemptions on the total number of employees in a firm rather than the establishment size. Size exemptions must be based upon individual establishment size. The factors that make recordkeeping difficult and unproductive for small facilities are not eliminated by adding small facilities together. Small facilities are usually unique and adding together the injury and illness experience of different small facilities will not produce a valid database for accident analysis or accident prevention planning. Injury and illness data collection is difficult because of small facility size and lack of recordkeeping expertise and resources. The benefits of collecting information in small facilities does not justify the costs. It is illogical to base the size exemption on anything other than the size of each separate establishment.

OSHA does not agree with this comment because the resources available in a given business depend on the size of the firm as a whole, not on the size of individual establishments owned by the firm. In addition, the analysis of injury records should be of value to the firm as a whole, regardless of the size of individual establishments. Further, an exemption based on individual establishments would be difficult to administer, especially in

cases where an individual employee, such as a maintenance worker, regularly reports to work at several establishments.

Section 1904.2 Partial Exemption for Establishments in Certain Industries

Section 1904.2 of the final rule partially exempts employers with establishments classified in certain lower-hazard industries. The final rule updates the former rule's listing of partially exempted lower-hazard industries. Lower-hazard industries are those Standard Industrial Classification (SIC) code industries within SICs 52–89 that have an average Days Away, Restricted, or Transferred (DART) rate at or below 75% of the national average DART rate. The former rule also contained such a list based on data from 1978–1980. The final rule's list differs from that of the former rule in two respects: (1) the hazard information supporting the final rule's lower-hazard industry exemptions is based on the most recent three years of BLS statistics (1996, 1997, 1998), and (2) the exception is calculated at the 3-digit rather than 2-digit level.

The changes in the final rule's industry exemptions are designed to require more employers in higher-hazard industries to keep records all of the time and to exempt employers in certain lower-hazard industries from keeping OSHA injury and illness records routinely. For example, compared with the former rule, the final rule requires many employers in the 3-digit industries within retail and service sector industries that have higher rates of occupational injuries and illnesses to keep these records but exempts employers in 3-digit industries within those industries that report a lower rate of occupational injury and illness. Section 1904.2 of the final rule, ''Partial exemption for establishments in certain industries,'' states:

(a) Basic requirement.

(1) If your business establishment is classified in a specific low hazard retail, service, finance, insurance or real estate industry listed in Appendix A to this Subpart B, you do not need to keep OSHA injury and illness records unless the government asks you to keep the records under § 1904.41 or § 1904.42. However, all employers must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees (see § 1904.39).

(2) If one or more of your company's establishments are classified in a non-exempt industry, you must keep OSHA injury and illness records for all of such establishments unless your company is partially exempted because of size under § 1904.1.

(b) Implementation.

(1) Does the partial industry classification exemption apply only to business establishments in the retail, services, finance, insurance or real estate industries (SICs 52–89)?

Yes. Business establishments classified in agriculture; mining; construction; manufacturing; transportation; communication, electric, gas and sanitary services; or wholesale trade are not eligible for the partial industry classification exemption.

(2) Is the partial industry classification exemption based on the industry classification of my entire company or on the classification of individual business establishments operated by my company?

The partial industry classification exemption applies to individual business establishments. If a company has several business establishments engaged in different classes of business activities, some of the company's establishments may be required to keep records, while others may be exempt.

(3) How do I determine the Standard Industrial Classification code for my company or for individual establishments?

You determine your Standard Industrial Classification (SIC) code by using the Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget. You may contact your nearest OSHA office or State agency for help in determining your SIC.

Employers with establishments in those industry sectors shown in Appendix A are not required routinely to keep OSHA records for their establishments. They must, however, keep records if requested to do so by the Bureau of Labor Statistics in connection with its Annual Survey (section 1904.42) or by OSHA in connection with its Data Initiative (section 1904.41). In addition, all employers covered by the OSH Act must report a work-related fatality, or an accident that results in the hospitalization of three or more employees, to OSHA within 8 hours (section 1904.39).

In 1982, OSHA exempted establishments in a number of service, finance and retail industries from the duty to regularly maintain the OSHA Log and Incident Report (47 FR 57699 (Dec. 28, 1982)). This industry exemption to the Part 1904 rule was intended to ''reduce paperwork burden on employers without compromising worker safety and health.''

The 1982 list of partially exempt industries was established by identifying lower hazard major industry groups in the SIC Divisions encompassing retail trade, finance, insurance and real estate, and the service industries (SICs 52–89). Major industry groups were defined as the 2-digit level industries from the SIC manual published by the U.S. Office of Management and Budget (OMB). Industries in these major industry groups were partially exempted from coverage by Part 1904 if their average lost workday injury rate (LWDI) for 1978–80 was at or below 75% of the overall private sector LWDI average rate for that year. Industries traditionally targeted for OSHA enforcement (those in SICs 01 through 51, comprising the industry divisions of agriculture, construction, manufacturing, transportation and public utilities, mining, and wholesale trade) remained subject to the full recordkeeping requirements. Although the 1982 **Federal Register** notice discussed the possibility of revising the exempt industry list on a routine basis, the list of partially exempt industries compiled in 1982 has remained unchanged until this revision of the Part 1904 rule.

The proposed rule would have updated the industry exemption based on more current data, and would have relied on 3-digit SIC code data to do so. The only change from the former rule taken in the proposal would have been reliance on LWDI rates for industries at the 3-digit, rather than 2-digit, level.

Evaluating industries at the 3-digit level allows OSHA to identify 3-digit industries with high LWDI rates (DART rates in the terminology of the final rule) that are located within 2-digit industries with relatively low rates. Conversely, use of this approach allows OSHA to identify lower-hazard 3-digit industries within a 2-digit industry that have relatively high LWDI (DART) rates. Use of LWDI (DART) rates at the more detailed level of SIC coding increases the specificity of the targeting of the exemptions and makes the rule more equitable by exempting workplaces in lower-hazard industries and requiring employers in more hazardous industries to keep records.

Under the proposal, based on their LWDI (DART) rates, the following industries would have been required to keep records for the first time since 1982:

SIC 553 Auto and Home Supply Stores
SIC 555 Boat Dealers
SIC 571 Home Furniture and Furnishings Stores
SIC 581 Eating Places
SIC 582 Drinking Places
SIC 596 Nonstore Retailers
SIC 598 Fuel Dealers
SIC 651 Real Estate Operators and Lessors
SIC 655 Land Subdividers and Developers
SIC 721 Laundry, Cleaning, and Garment Services
SIC 734 Services to Dwellings and Other Buildings
SIC 735 Miscellaneous Equipment Rental and Leasing
SIC 736 Personnel Supply Services
SIC 833 Job Training and Vocational Rehabilitation Services
SIC 836 Residential Care

SIC 842 Arboreta and Botanical or Zoological Gardens, and
SIC 869 Membership Organizations Not Elsewhere Classified

The following industries would have been newly exempted by the proposal:

SIC 525 Hardware Stores
SIC 752 Automobile Parking
SIC 764 Reupholstery and Furniture Repair
SIC 793 Bowling Centers
SIC 801 Offices and Clinics of Doctors of Medicine
SIC 807 Medical and Dental Laboratories, and
SIC 809 Miscellaneous Health and Allied Services, Not Elsewhere Classified

In the Issues section of the preamble to the proposed rule, OSHA asked the public to comment on the appropriateness of the proposed exemption procedure, and on whether or not OSHA should expand this approach to industries in SICs 01 through 51. The Agency also asked for alternative approaches that would reduce employer paperwork burden while retaining needed injury and illness information, and for estimates of the costs and benefits associated with these alternatives. OSHA notes that the final rule is based on the most recent data available (1996–1998). Although it has relied on the methodologies proposed (3-digit SIC codes, industries below 75% of the national average LWDI rate), there have been a few shifts in the industries proposed to be covered and those actually covered by the final rule. Thus this final rule will continue to exempt eating and drinking places (SICs 581 and 582) but will not exempt automobile parking (SIC 752).

Comments on the Proposed Industry Exemptions

A number of commenters supported OSHA's proposal to apply the 1982 exemption criteria to the service and retail industries at the three-digit SIC level (see, *e.g.*, Exs. 27; 15: 26, 199, 229, 247, 272, 299, 359, 375, 378, 392). However, a number of commenters opposed any exemptions from the Part 1904 requirements on the basis of industry classification (see, *e.g.*, Exs. 15: 9, 13, 31, 62, 78, 83, 129, 153, 154, 163, 186, 197, 204, 234, 350, 379, 399, 414). The International Paper Company explained its reasons for opposing industry exemptions as follows:

> Exempting employers with low incidence rates is inconsistent with a major objective of the recordkeeping rules; specifically, measuring the magnitude of work-related injuries and illnesses. Exemption of specific industrial classifications or small employers may bias statistics which are used by OSHA for identifying industries for inspections. These exemptions may also impact statistics related to less traditional, but increasingly more frequent exposures such as bloodborne pathogens, tuberculosis, motor vehicle incidents or workplace violence.
>
> Exempting employers with low incidence rates does not provide any measurable relief from paperwork requirements. Time spent on recordkeeping is primarily dedicated to decision making regarding work relationship and recordability, not actual Log entries or completing supplemental reports. Simplifying the decision making process is the best way to reduce the burden of recordkeeping, not exempting employers (Ex. 15:399).

The Service Employees International Union (SEIU) agreed:

> Injury and illness recordkeeping is the most basic step an employer must take in order to begin to address workplace hazards. Responsible employers recognize that injury and illness records are a useful tool for development of sound company safety and health programs. This information is also critical to the workers themselves, by raising awareness about how and where people are getting hurt, they in turn use this information to work to eliminate the causes of such injuries and illnesses. Therefore it is disturbing that in the proposed revised standard, there still exist industry exemptions for recordkeeping and reporting. Prior to 1983, all employers covered by OSHA with more than ten employees were required to maintain injury and illness records.
>
> * * * SEIU believes that such exemptions are unwarranted and violate the specific language of the Occupational Safety and Health Act. * * * The Act does not provide for excluding entire classes of occupationally injured and sick workers. Furthermore, little recordkeeping will be required for industries that are safe and experience low rates of injuries and illnesses. It is critical that OSHA require recordkeeping for all industries, especially since many previously exempt sectors now experience increasing rates of injury and illness. Many of these industry sectors are also dramatically expanding—therefore, continued recordkeeping is even more critical (Ex. 15:379).

The National Safety Council (Ex. 15:359) cautioned:

> From the point of view of injury and illness prevention. * * * an establishment that does not track its injury and illness experience cannot effectively administer a prevention program. * * *

Although OSHA encourages employers to track the occupational injuries and illnesses occurring among their employees and agrees that doing so is important for safety and health prevention efforts, OSHA has decided in the final rule to continue the long-established practice of exempting employers in industries with lower average lost workday incidence rates from most OSHA recordkeeping requirements but to tie the exemption as closely as possible to specific 3-digit SIC code data.

Accordingly, non-mandatory Appendix A of the final rule identifies industries for exemption at the 3-digit SIC code level. Although this approach does make the list of exempt industries longer and more detailed, it also targets the exemption more effectively than did the former rule's list. For example, the final rule does not exempt firms in many of the more hazardous 3-digit SIC industries that are embedded within lower rate 2-digit SIC industries. It does, however, exempt firms in relatively low-hazard 3-digit SIC industries, even though they are classified in higher hazard 2-digit SIC industries. Where Days Away, Restricted, or Transferred (DART, formerly LWDI) rate calculations exempt all of the 3-digit SIC industries within a given 2-digit industry, the exempt industry list in Appendix A displays only the 2-digit SIC classification. This approach merely provides a shorter, simpler list.

For multi-establishment firms, the industry exemption is based on the SIC code of each establishment, rather than the industrial classification of a firm as a whole. For example, some larger corporations have establishments that engage in different business activities. Where this is the case, each establishment could fall into a different SIC code, based on its business activity. The Standard Industrial Classification manual states that the establishment, rather than the firm, is the appropriate unit for determining the SIC code. Thus, depending on the SIC code of the establishment, one establishment of a firm may be exempt from routine recordkeeping under Part 1904, while another establishment in the same company may not be exempt.

Several commenters suggested that OSHA use an alternate method for determining exemptions (see, *e.g.*, Exs. 15: 97, 201, 359). The National Safety Council (Ex. 15: 359), for example, urged OSHA to ''evaluate other exemption procedures before incorporating one into proposed section 1904.2.''

OSHA has evaluated other approaches but has decided that the 3-digit DART rate method is both simpler and more equitable than the former 2-digit method. By exempting lower-hazard industry sectors within SICs 52–89, OSHA hopes both to concentrate its recordkeeping requirements in sectors that will provide the most useful data and to minimize paperwork burden. No exemption method is perfect: any method that exempts broad classes of employers from recordkeeping obligations will exempt some more hazardous workplaces and cover some less hazardous workplaces. OSHA has

attempted to minimize both of these problems by using the most current injury and illness statistics available, and by applying them to a more detailed industry level within the retail, financial and service sectors than was formerly the case. OSHA has also limited the scope of the exemptions by using an exemption threshold that is well below the national average, including only those industries that have average DART rates that are at or below 75% of the national average DART rate. The rule also limits the exempt industries to the retail, financial and service sectors, which are generally less hazardous than the manufacturing industry sector.

The Orlando Occupational Safety and Health Customer Council asked: ''What is the criteria for exemptions? For example, large auto dealers who also perform auto repair work are exempt, while smaller auto repair shops are not exempt. Why not classify the organization by the most hazardous occupation [within that organization]?'' (Ex. 15: 97).

In response to this query, OSHA notes that the exemption procedure is reasonably straightforward, as the following example illustrates: the automobile dealer industry is exempt because its DART rate, as indicated by its average over three years of BLS data, is below 75% of the national average rate. Automobile repair shops are not exempted, however, because their rate is higher than the 75% cutoff. If OSHA were to base its recordkeeping requirements on the most hazardous occupation within a given industry, assuming that occupation-specific within-industry injury and illness data were available, as this commenter suggests, the number of establishments in individual industries that would have to keep records would greatly increase. This is because even relatively safe industries have some number of employees who engage in relatively hazardous occupations. For example, workers who transport currency, coins, and documents for banks and other financial institutions are engaged in a fairly hazardous occupation. They may be injured in many different ways, ranging from highway accidents, to lifting of heavy parcels, to robberies. However, the experience of these few employees within the industry does not accurately reflect the relative degree of hazard confronting the vast majority of employees in the financial industries. Although it is certainly not perfect, OSHA believes that the BLS lost workday injury rate (DART rate) is a better comparative statistic than the injury rate for a particular occupation because it reflects the risk to the average worker within the particular industry. Moreover, while it is relatively easy to classify employees according to occupation, it is unclear how to classify individual employers with regard to detailed occupation, and OSHA is also not aware of data that would permit such classification.

The Caterpillar Corporation (Ex. 15: 201) suggested that OSHA adjust the formula used to determine which industries are exempted:

> You propose to base your exemption on achieving less than 75% of the average private sector lost workday injury rate; however, we would recommend expanding the size of the exemption to include all industries below the private sector average. We have no objection to your proposal to eliminate the ''nesting'' problem within 2-digit SIC code groups, as long as the exemption size is maximized. The recordkeeping paperwork burden for small and relatively safe industries is significant and not justified based upon the benefits received.

OSHA has decided in the final rule to continue to use a formula that will exempt retail, finance and services industries from most recordkeeping requirements if they have a Days Away, Restricted, or Transferred (DART) rate that is at or below 75% of the national average rate. OSHA believes that the 75% threshold will ensure that only industries with relatively low injury and illness rates are exempted from these requirements. Using the national average DART rate, rather than 75% of the national DART rate, as the threshold for exemption purposes would exempt employers whose industries were merely average in terms of their DART rate.

OSHA received many comments from firms in industries that have been exempt from most OSHA recordkeeping requirements since 1982 but that would have been required by the proposed rule to keep records. Most of these commenters opposed their industry's inclusion within the scope of the proposed rule. For example, several commenters from the restaurant industry objected to the fact that SICs 581 and 582, eating and drinking places, would have been covered (see, *e.g.*, Exs. 15: 3, 4, 5, 6, 7, 8, 12, 20, 22, 55, 96, 125, 202, 311). The National Restaurant Association remarked:

> The Association opposes elimination of this exemption on the bases that:
>
> —the proposal, if promulgated, will cost eating and drinking establishments an estimated $17 million in the first year alone;
>
> —the additional recordkeeping obligations under the proposed rule duplicate data already available to OSHA from other sources; and
>
> —the current data does not justify removal of the partial recordkeeping exemption for eating and drinking establishments (Ex. 15: 96).

In the final rule, the exemption for eating and drinking places is retained, because the recent data indicate that these industries have DART rates that are below 75% of the national rate.

Two commenters addressed the proposed removal of the exemption for SIC 553, auto and home supply stores (Ex. 15: 367, 402). For example, the Automotive Parts and Accessories Association (APAA) stated:

> The vast majority of auto parts stores are similar to other retailers which would still be exempt under this proposal. * * * [m]ore than three quarters of the automotive parts retailers which are proposed to be saddled with the full Log requirements would have little or no potential injury or illness experience to justify the added mandate (Ex. 15: 367).

Several commenters discussed the proposed removal of the exemption for SIC 721, laundry, dry cleaning and textile rental services (see, *e.g.*, Exs. 15: 183, 244, 326). Typical of the views expressed by these commenters was the comment of the Textile Rental Services Association of America (TRSA):

> TRSA is strongly opposed to OSHA's proposal to eliminate the partial exemption from recordkeeping and reporting requirements for laundry, cleaning, and garments services for Standard Industrial Classification (SIC) 721. TRSA believes that the proposed inclusion of the textile rental industry is unjustified. Because the textile rental industry has historically been proactive when it comes to workplace safety and has been 75% below the industry average for lost work days, we contend that OSHA's plan to eliminate the partial exemption from injury/illness recordkeeping requirements is unwarranted (Ex. 15: 183).

The National Association of Home Builders (NAHB) commented on the proposed inclusion in the recordkeeping system of a variety of industries closely associated with the home building industry:

> As a result of using a 3 digit Standard Industrial Classification (SIC), ''Real Estate Offices'' (SIC 651) will now be required to report and record injury and illness data if they have more than 19 workers during the year. A cursory analysis of the hazards associated with real estate offices seems to indicate limited exposure to high hazards (Ex. 15: 323).

The primary arguments put forth by these commenters are as follows: (1) The occupational injury and illness data collected under Part 1904 are available to OSHA from other sources; (2) OSHA's data requirements are burdensome; (3) the use of even more current data would change the list of exempted industries;

and (4) some of the individual industries that would be covered are relatively safe.

In response, OSHA notes that, although statistical information on average work-related injury and illness rates in industries is available from the BLS and other sources, information about the hazards present at specific workplaces is not available to OSHA from those same sources. OSHA recognizes that the maintenance of these records imposes some burden on businesses in the form of paperwork. However, the benefits of keeping records are also clearly substantial: informed employers can use the data to provide greater protection for their employees and to receive the benefits that accrue from prevention efforts in the form of fewer injuries and illnesses. In addition, the records are useful to OSHA in the inspection process. OSHA also believes that the process for selecting exempt industries must be as objective as possible, and that exemptions must rely upon timely and objective information about the safety and health experience of a given industry. The lost workday injury rates published by the Bureau of Labor Statistics provide the most consistent and reliable nationwide statistics available for this purpose, and OSHA is therefore relying on these data. The 75% of the national rate cutoff strikes a reasonable balance between collecting data likely to be useful and avoiding unnecessary burden. OSHA has used the most recent data available at this time in establishing the final list of partially exempt industries. OSHA also has used data from a three-year period (1996–1998) rather than a one-year period to reduce year-to-year variation in the data.

Other commenters argued that their industry should not be exempt because their workplaces continue to pose risk to the workers in them. For example, the American Nurses Association (ANA) opposed the partial exemption of doctor's offices and health services:

> ANA urges OSHA to remember the purpose of the Act, to protect the health and safety of ALL workers, when deliberating on exempting employers from this standard. As stated before, health care workers risk of exposure to injury and illness is not limited to one setting. Therefore, the Standard Industrial Classifications (SICs) 801 Offices and Clinics of Doctors of Medicine and SIC 809 Miscellaneous Health and Allied Services should not be exempt from this standard (Ex. 15: 376).

The International Brotherhood of Teamsters (IBT) also argued against excluding certain health care service industries:

> IBT has concerns when the use of this analysis will grant partial exemptions to SIC codes 801 (offices and clinics of doctors), 807 (medical and dental offices), and 809 (miscellaneous health and allied services). All three of these SIC codes are covered under other OSHA rules (such as the bloodborne pathogen standard and ethylene oxide standard) and have medical surveillance requirements to detect adverse health effects. OSHA should require that these workplaces keep records of work related illnesses or injuries that occur. Especially, since OSHA has already determined that there is a significant risk of harm from exposures in these workplaces (Ex. 15: 369).

OSHA recognizes that workers in establishments that are exempt under the 75% DART rate criterion will continue to be exposed to job-related hazards and to experience workplace injuries and illnesses. However, because these industries' overall injury rate is below the 75% cutoff, they qualify for exemption, along with other financial, service and retail industries that fall below that injury rate threshold. Exemption of an industry on the basis of its lower-than-average DART rate does not mean that all establishments within that industry have such rates or that workers in that industry will not experience injuries and illnesses. The 1904 partial exemption does not exempt employers from any other OSHA regulation or standard, so employees in these industries will continue to benefit from the protection offered by the OSHA standards. For example, while doctors' and dentists' offices are partially exempt under the 1904 regulation, they are still required to comply with the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030). Use of the 75% criterion merely provides a cutoff point, based on BLS injury and illness rates, for different industry sectors. OSHA believes that it is appropriate to use the 75% cutoff point because, in general, it is an appropriate overall indicator of the relative hazard rank of an industry. OSHA recognizes that no average across-establishment statistic can capture the injury and illness experience of all occupations or establishments within that industry.

For some SIC codes, the BLS Annual Survey does not publish data at the three-digit level. The survey is designed to provide data at the four-digit level in the manufacturing industries and at the three-digit level in all other industries, primarily because of budget constraints that limit the amount of data the BLS can collect and process. However, the survey has other publication criteria that make some of the data at this detailed level unpublishable. Under the proposal, coverage would have been based on the industry's LWDI rate. If a 3-digit sector did not have published data, OSHA proposed to use the data for the two-digit industry group for that sector.

One 3-digit sector affected by this approach was dental offices (SIC 802), which the proposal would have covered because the entire 2-digit health care sector has a relatively high injury and illness rate. The American Dental Association (ADA) suggested that OSHA use an alternative approach to exempt dentists from coverage rather than rely on a strict data protocol for making the decision:

> [d]ental offices are very much like physicians' offices in terms of size, scope of activity, and degree of occupational health risk. For purposes of this rulemaking, however, physicians' offices have been granted a categorical exemption while dentists' offices (SIC Code 802) have not. Even dental laboratories (SIC Code 807) have been granted a categorical exemption from this rule, although it is unlikely that anyone would assert that dental laboratories are safer and more healthful places to work than dental offices. The ADA is unaware of any data suggesting that dental offices should be treated differently than either physicians' offices or dental laboratories (Ex. 15: 408).

The more recent data published by the BLS for the years 1996, 1997, and 1998 include specific estimates of the injury and illness experience for SIC 802 (dental offices) in that period. The dental office industry experienced a 3-year average rate of days away, restricted, or transferred injuries of 0.2 per 100 workers in those years, a rate well below 75% of the national average. Therefore, the final rule exempts employers classified in SIC 802 from routine recordkeeping requirements.

The proposed rule would have removed SIC 736 (personnel supply services) from the list of exempted industry sectors; however, because this industry's more recent average DART (formerly LWDI) rate (for the years 1996, 1997, and 1998, the base years OSHA is using to determine lower-hazard industry exemptions) is above 75% of the national average cutoff, SIC 736 is not exempted under the final rule. The final rule (see section 1904.31(b)(2)) requires the ''using firm'' to record the injuries and illnesses of temporary workers that are ''leased'' from a personnel supply service, providing that the using firm supervises these workers on a day-to-day basis.

The National Association of Temporary and Staffing Services commented on the proposed removal of the exemption for SIC 736:

The proposed rules also would lift the partial exemption for employers classified under SIC Code 7363 (help supply services). Those employers, among others, were exempted from injury and illness record keeping requirements in 1982 because they had low work place injury rates. The proposal to lift the exemption is based on reported increased injury rates for these employers. However, since records for the vast majority of staffing firm employees are maintained by the worksite employer as explained above, the practical effect of lifting the exemption for staffing firms would be to require them to maintain records for their home office clerical and administrative workers—for whom there is no evidence of increased work place illnesses or injuries. Hence, we urge OSHA to retain the partial exemption for SIC 7363.

If the exemption is not retained in the case of SIC 7363 employers, it would be especially important for the final rules to expressly provide, as set forth above, that there is no intent to impose a dual reporting requirement. At least one state OSH office already has construed the proposed lifting of the partial exemption as creating an obligation on the part of staffing firms to maintain records for all of its employees, including temporary employees supervised by the worksite employer. This is clearly inconsistent with the intent of the proposed rule and should be clarified (Ex. 15: 333).

The final rule makes clear that, when a ''leased'' or ''temporary'' employee is supervised on a day-to-day basis by the using firm, the using firm must enter that employee's injuries and illnesses on the using firm's establishment Log and other records. Injuries and illnesses occurring to a given employee should only be recorded once, either by the temporary staffing firm or the using firm, depending on which firm actually supervises the temporary employees on a day-to-day basis. (see the discussion for § 1904.31, Covered employees, for an in-depth explanation of these requirements.)

Some commenters suggested that OSHA should grant partial exemptions to specific industries within SICs 01 through 51 (agriculture, forestry and fishing; mining; construction; manufacturing; transportation, communications, electric, gas and sanitary services; and wholesale trade) that had lost workday incidence rates that were below 75% of the average rate for all industries instead of limiting such exemptions to industries in SICs 52–89 (see, *e.g.*, Exs. 15: 77, 95, 184, 201, 357, 359, 374, 375). Typical of these comments was one from the Synthetic Organic Chemical Manufacturers Association (SOCMA):

SOCMA believes that the partial exemption from recordkeeping requirements should be consistent for all standard industrial classifications. SOCMA supports the use of injury rates, rather than SIC Codes, as a criterion for partial exemption from recordkeeping requirements, provided the same criterion is applied to all work sites. For example, if the performance measure was 75 percent of the private sector average, then all industries with injury rates below this average should be exempt.

There is sound basis for this shift in OSHA's approach. It has been found in the past that some industries in partially exempt SIC Codes 52—89 have had high injury rates while some in the ''manufacturing'' SIC Codes 01–51 have had low injury rates. This has resulted in insufficient or unavailable injury and illness information for some facilities in SIC Codes 52–89 with high injury rates. Inspection resources are wasted if injury and illness information is not available during the inspection of high injury rate facilities. Conversely, requiring full recordkeeping for facilities with low injury rates results in a facility wasting resources on unnecessary recordkeeping. All businesses, regardless of SIC Code, should be treated equally and should have the opportunity to be exempt based on injury rates (Ex. 15: 357).

The National Automobile Dealers Association (NADA) urged OSHA to exempt truck dealerships [classified in SIC 50], even though they are considered wholesale rather than retail establishments, because of their similarity to automobile dealerships [SIC 551], which are exempted:

NADA strongly urges OSHA to exempt truck dealerships (SIC 5012), the overwhelming majority of whom are small businesses as recognized by the Small Business Administration (SBA).* * * A limited exemption for truck dealerships is justified under the same criteria used for automobile dealerships (Ex. 15: 280).

On the other hand, some commenters agreed with OSHA's proposal to require all businesses in SICs 01–51 to keep injury and illness records (see, *e.g.*, Exs. 15: 170, 199, 369). The International Brotherhood of Teamsters (IBT) remarked: ''IBT does not support using the same analysis of data at the three digit level of those industries in SIC 01 through 51 (industries historically not exempted from recordkeeping requirements). IBT maintains the importance of recording of all occupational injuries and illnesses'' (Ex. 15: 369). A major utility, New England Power, agreed: ''We believe that the existing exemption criteria for SICs 52–89 should remain the same. Although many industries would fall within the exemption criteria in SICs 01–51, they are still higher hazard industries producing valuable data on injury/illness experience'' (Ex. 15: 170). The NYNEX Corporation also agreed with OSHA's proposed approach:

We are not in favor of extending the concept of industry-wide recordkeeping exemptions to the list of three digit codes in the group 01–51 that were identified in the proposal. Even though these groups have average injury and illness case rates that are less than 75% of the private sector average, the nature of the work operations performed within these industries suggests that the variation above and below average for individual establishments could be much greater than with SIC Codes 52–89. An exemption for this group of establishments could mask the existence of some very high case rates within this group (Ex. 15: 199).

After a review of the recent BLS data, OSHA's own experience, and the record of this rulemaking, OSHA has decided that it is appropriate to require firms in industries within the SIC 01 through 51 codes to comply with OSHA's requirements to keep records. Thus, the final rule, like the proposed rule and the rule published in 1982, does not exempt firms with more than 10 employees in the industry divisions of agriculture, mining, construction, manufacturing, wholesale trade, transportation and public utilities (SICs 01—52) from routine recordkeeping.

Although OSHA no longer restricts its inspection targeting schemes to employers in these SICs, these industries have traditionally been, and continue to be, the focus of many of the Agency's enforcement programs. OSHA believes that it is important for larger employers (i.e., those with more than 10 employees) in these industries to continue to collect and maintain injury and illness records for use by the employer, employees and the government. As noted in the comments there is a wide variation in injury/illness rates among establishments classified in these industries. Further, as a whole, these industries continue to have injury and illness rates that are generally higher than the private sector average and will thus benefit from the information that OSHA-mandated records can provide about safety and health conditions in the workplace. In 1998, the lost workday injury and illness rate for the entire private sector was 3.1. As can be seen in the following table of lost workday injury and illness rates by industry division, all of the covered divisions exceeded 75% of the national average LWDI rate (2.325) for the private sector as a whole, while the exempted industry divisions had substantially lower rates.

Industry sector	1998 lost workday injury and illness rate
Agriculture, forestry and fishing (SIC 01–09)	3.9
Mining (SIC 10–14)	2.9
Construction (SIC 15–17)	4.0
Manufacturing (SIC 20–39)	4.7

Industry sector	1998 lost workday injury and illness rate
Transportation, communications, electric, gas and sanitary services (SIC 40–49)	4.3
Wholesale trade (SIC 50 & 51)	3.3
Retail trade (SIC 52–59)	2.7
Finance, Insurance & Real Estate (SIC 60–67)	0.7
Services (SIC 70–87)	2.4

(U.S. Department of Labor Press Release USDL 98–494, December 16, 1999)

The problems that may be encountered by exempting additional industries are exemplified by an analysis of the petrochemical industry and the manufacturers of chemicals and petroleum products, classified in SICs 28 and 29. If the industry exemption were applied to these industries, injury and illness records would not be required for highly specialized plants that make industrial inorganic chemicals, plastics materials and synthetic resins, pharmaceuticals, industrial organic chemicals, and petroleum refineries. These industries have relatively low occupational injury and illness rates, but they are not truly low-hazard industries. All of these facilities make, use and handle highly toxic chemicals and consequently have the potential for both acute overexposure and chronic exposures of their employees to these substances. These industries, for example, are the industries to which OSHA health standards, such as the benzene, ethylene oxide, and methylene chloride standards, apply. Because occupational illnesses, particularly chronic illnesses, are notoriously underreported (see, *e.g.*, Exs. 15: 407, 4, 5), the LWDI rates for these industries do not accurately reflect the level of hazard present in these facilities. In addition, these types of facilities are prone to major safety and health problems, including explosions, toxic releases and other events that often lead to fatalities and serious injuries. The safety and health problems of these facilities are not limited to workers, but extend to hazards posed to the general public. In addition, OSHA frequently inspects these facilities because of their potential for catastrophic releases, fires, and explosions, and the Part 1904 injury and illness records have been extremely useful for this purpose.

The Agency finds that continuing, and improving on, the Agency's longstanding approach of partially exempting those industries in SIC codes 52–89 that have DART rates, based on 3 years of BLS data, below 75% of the private-sector average strikes the appropriate balance between the need for injury and illness information on the one hand, and the paperwork burdens created by recording obligations, on the other. The BLS Annual Survey will, of course, continue to provide national job-related statistics for all industries and all sizes of businesses. As it has done in the past, the BLS will sample employers in the partially exempt industries and ask each sampled employer to keep OSHA records for one year. In the following year, BLS will collect the records to generate estimates of occupational injury and illness for firms in the partially exempt industries and size classes, and combine those data with data for other industries to generate estimates for the entire U.S. private sector. These procedures ensure the integrity of the national statistics on occupational safety and health.

The list of partially exempted industry sectors in this rule is based on the current (1987) revision of the SIC manual. The Office of Management and Budget (OMB) is charged with maintaining and revising the system of industrial classification that will replace the SIC. The new system is used by U.S. statistical agencies (including the BLS). Under the direction of OMB, the U.S. government has adopted a new, comprehensive system of industrial classification that will replace the SIC. The new system is called the North American Industrial Classification System (NAICS). NAICS will harmonize the U.S. classification system with those of Canada and Mexico and make it easier to compare various economic and labor statistics among the three countries. Several commenters expressed concern about this change in industrial classification systems (see, *e.g.*, Exs. 15: 70, 182, 183, 379). For example, the American Society of Safety Engineers (ASSE) stated:

> The Society is concerned with the recent Office of Management Budget (OMB), proposal to change the Economic Classification Policy from the Standard Industrial Classification System to the North American Industry Classification System. We recommend that OSHA study what the effect would be of promulgating a new regulation partially based on SIC codes when these codes could be potentially replaced/revised with a new classification system (Ex. 15: 182).

Although the NAIC industry classification system has been formally adopted by the United States, the individual U.S. statistical agencies (including the BLS) are still converting their statistical systems to reflect the new codes and have not begun to publish statistics using the new industry classifications. The new system will be phased into the nation's various statistical systems over the next several years. The BLS does not expect to publish the first occupational injury and illness rates under the new system until the reference year 2003. Given the lag time between the end of the year and the publication of the statistics, data for a full three-year period will not be available before December of 2006.

Because data to revise the Part 1904 industry exemption based on the NAIC system will not be available for another five years, OSHA has decided to update the industry exemption list now based on the most recent SIC-based information available from BLS for the years 1996, 1997 and 1998. OSHA will conduct a future rulemaking to update the industry classifications to the NAIC system when BLS publishes injury and illness data that can be used to make appropriate industry-by-industry decisions.

The proposal inquired whether OSHA should adopt a procedure for adjusting the industry exemption lists as the injury and illness rates of various industries change over time. A number of commenters urged OSHA to update the exemption list periodically (see, *e.g.*, Exs. 15: 27, 87, 170, 181, 199, 272, 280, 359, 374, 375, 392, 407). Some commenters suggested various time periods, such as annually (Ex. 15: 374), every 3 years (see, *e.g.*, Exs. 15: 87, 181, 199, 407), every 5 years (see, *e.g.*, Exs. 15: 170, 181, 262, 272, 359, 375), or every 5 to 10 years (Ex. 15: 392). Southwestern Bell Telephone suggested that the list should be modified whenever changes in the injury and illness rates warrant a change (Ex. 15: 27). In the opinion of the National Safety Council, ''How often the SIC exemption should be updated depends on how well and how quickly OSHA can communicate changes in the exempt industry list to those affected. The Council recommends updating the list every 3 to 5 years'' (Ex. 15: 280).

Several commenters, however, opposed frequent updating of the SIC exemption list. For example, the Orlando Safety and Health Customer Council stated: ''Changes to SIC exemptions should be limited to a minimum of every 5 years. This would reduce confusion'' (Ex. 15: 97). The National Institute for Occupational Safety and Health (NIOSH) generally opposed industry exemptions but recommended that, if they were continued, they be updated as follows:

If OSHA continues to provide this exemption for low injury rate SICs, NIOSH

recommends that the list of partially exempt SICs be placed in an Appendix. Because the injury and illness experience of an industry can change over time (*e.g.*, SIC 58 and SIC 84 had injury rates at or below 75% of the private sector average in 1983, but above 75% of the private sector average in 1990 and 1992), OSHA should periodically review and modify the list of partially exempt industries. NIOSH recommends that the criteria for partial exemptions be placed in the regulatory text, while placing the list of partially exempt industries in an Appendix as noted so that the list could be updated periodically by administrative means rather than by changing the regulation. In addition to the partial exemption criteria, the regulatory text should specify the interval (in years) for reviewing and revising the list of those industries that qualify. NIOSH recommends an interval of 3 years for the review and revision process (Ex. 15: 407).

OSHA agrees with those commenters who favored regular updating of the SIC code exemption list. For the list to focus Agency resources most effectively on the most hazardous industries, it must be up-to-date. Industries that are successful in lowering their rates to levels below the exemption threshold should be exempted, while those whose rates rise sufficiently to exceed the criterion should receive additional attention. Unfortunately, the change in industry coding systems from the Standard Industrial Classification (SIC) system to the North American Industry Classification (NAIC) system will require a future rulemaking to shift to that system. Therefore, there is no value in adding an updating mechanism at this time. The automatic updating issue will be addressed in the same future rulemaking that addresses the NAIC system conversion.

Partial Exemptions for Employers Under the Jurisdiction of OSHA-Approved State Occupational Safety and Health Plans

Robert L. Rowan, Jr. expressed a concern that the OSHA State-Plan States could have differing industry exemptions from those applying to federal OSHA states, commenting:

In regard to the note in OSHA's Coverage and Exemption Table that ''some states with their own occupational safety and health programs do not recognize the federal record keeping exemptions''. I am deeply concerned. I would prefer that all jurisdictions enforce the same requirements. This will be confusing and create needless problems for businesses with sites in numerous states if requirements are not enforced equally (Ex. 15: 62).

For those States with OSHA-approved State plans, the state is generally required to adopt Federal OSHA rules, or a State rule that is at least as effective as the Federal OSHA rule. States with approved plans do not need to exempt employers from recordkeeping, either by employer size or by industry classification, as the final Federal OSHA rule does, although they may choose to do so. For example, States with approved plans may require records from a wider universe of employers than Federal OSHA does. These States cannot exempt *more* industries or employers than Federal OSHA does, however, because doing so would result in a State rule that is not as effective as the Federal rule. A larger discussion of the effect on the State plans can be found in Section VIII of this preamble, State Plans.

Recordkeeping Under the Requirements of Other Federal Agencies

Section 1904.3 of the final rule provides guidance for employers who are subject to the occupational injury and illness recording and reporting requirements of other Federal agencies. Several other Federal agencies have similar requirements, such as the Mine Safety and Health Administration (MSHA), the Department of Energy (DOE), and the Federal Railroad Administration (FRA). The final rule at section 1904.3 tells the employer that OSHA will accept these records in place of the employer's Part 1904 records under two circumstances: (1) if OSHA has entered into a memorandum of understanding (MOU) with that agency that specifically accepts the other agency's records, the employer may use them in place of the OSHA records, or (2) if the other agency's records include the same information required by Part 1904, OSHA would consider them an acceptable substitute.

OSHA received very few comments on the issue of duplicate recordkeeping under different agency rules. The Fertilizer Institute (TFI) recommended that OSHA make the data mandated by OSHA and MSHA more consistent (Ex. 15:154). However, MSHA and OSHA have different recordkeeping requirements because the agencies' mandate and uses of the data differ. The approach OSHA takes in the final rule, which is to continue to accept data kept by employers under other Federal requirements if the two federal agencies have made an agreement to do so, or if the data are equivalent to the data required to be kept by Part 1904, appears to be the best way to handle the problem raised by the TFI.

Subpart C. Recordkeeping Forms and Recording Criteria

Subpart C of the final rule sets out the requirements of the rule for recording cases in the recordkeeping system. It contains provisions directing employers to keep records of the recordable occupational injuries and illnesses experienced by their employees, describes the forms the employer must use, and establishes the criteria that employers must follow to determine which work-related injury and illness cases must be entered onto the forms. Subpart C contains sections 1904.4 through 1904.29.

Section 1904.4 provides an overview of the requirements in Subpart C and contains a flowchart describing the recording process. How employers are to determine whether a given injury or illness is work-related is set out in section 1904.5. Section 1904.6 provides the requirements employers must follow to determine whether or not a work-related injury or illness is a new case or the continuation of a previously recorded injury or illness. Sections 1904.7 through 1904.12 contain the recording criteria for determining which new work-related injuries and illnesses must be recorded on the OSHA forms. Section 1904.29 explains which forms must be used and indicates the circumstances under which the employer may use substitute forms.

Section 1904.4 Recording Criteria

Section 1904.4 of the final rule contains provisions mandating the recording of work-related injuries and illnesses that must be entered on the OSHA 300 (Log) and 301 (Incident Report) forms. It sets out the recording requirements that employers are required to follow in recording cases.

Paragraph 1904.4(a) of the final rule mandates that each employer who is required by OSHA to keep records must record each fatality, injury or illness that is work-related, is a new case and not a continuation of an old case, and meets one or more of the general recording criteria in section 1904.7 or the additional criteria for specific cases found in sections 1904.8 through 1904.12. Paragraph (b) contains provisions implementing this basic requirement.

Paragraph 1904.4(b)(1) contains a table that points employers and their recordkeepers to the various sections of the rule that determine which work-related injuries and illnesses are to be recorded. These sections lay out the requirements for determining whether an injury or illness is work-related, if it is a new case, and if it meets one or more of the general recording criteria. In addition, the table contains a row addressing the application of these and additional criteria to specific kinds of cases (needlestick and sharps injury cases, tuberculosis cases, hearing loss

cases, medical removal cases, and musculoskeletal disorder cases). The table in paragraph 1904.4(b)(1) is intended to guide employers through the recording process and to act as a table of contents to the sections of Subpart C.

Paragraph (b)(2) is a decision tree, or flowchart, that shows the steps involved in determining whether or not a particular injury or illness case must be recorded on the OSHA forms. It essentially reflects the same information as is in the table in paragraph 1904.4(b)(1), except that it presents this information graphically.

The former rule had no tables or flowcharts that served this purpose. However, the former *Recordkeeping Guidelines* (Ex. 2) contained several flowcharts to help employers make decisions and understand the overall recording process. The proposed rule included a flowchart as Appendix C to Part 1904—Decision Tree for Recording Occupational Injuries and Illnesses. OSHA received very few comments in response to proposed Appendix C, and no commenters objected to the decision tree concept. The commenters who discussed the decision tree supported it, and many suggested that it should be incorporated into the computer software OSHA develops to assist employers with keeping the records (see, *e.g.*, Exs. 51, 15: 38, 67, 335, 407, 438).

In the final rule, OSHA has decided to include the flowchart because of its usefulness in depicting the overall recording process. OSHA has not labeled the flowchart non-mandatory, as some commenters (see, *e.g.*, Ex. 15: 335) suggested, because the recording of injuries and illnesses is a mandatory requirement and labeling the flowchart as non-mandatory could be confusing.

Section 1904.5 Determination of Work-Relatedness

This section of the final rule sets out the requirements employers must follow in determining whether a given injury or illness is work-related. Paragraph 1904.5(a) states that an injury or illness must be considered work-related if an event or exposure in the work environment caused or contributed to the injury or illness or significantly aggravated a pre-existing injury or illness. It stipulates that, for OSHA recordkeeping purposes, work relationship is presumed for such injuries and illnesses unless an exception listed in paragraph 1904.5(b)(2) specifically applies.

Implementation requirements are set forth in paragraph (b) of the final rule. Paragraph (b)(1) defines ''work environment'' for recordkeeping purposes and makes clear that the work environment includes the physical locations where employees are working as well as the equipment and materials used by the employee to perform work.

Paragraph (b)(2) lists the exceptions to the presumption of work-relatedness permitted by the final rule; cases meeting the conditions of any of the listed exceptions are not considered work-related and are therefore not recordable in the OSHA recordkeeping system.

This section of the preamble first explains OSHA's reasoning on the issue of work relationship, then discusses the exceptions to the general presumption and the comments received on the exceptions proposed, and then presents OSHA's rationale for including paragraphs (b)(3) through (b)(7) of the final rule, and the record evidence pertaining to each.

Section 8(c)(2) of the OSH Act directs the Secretary to issue regulations requiring employers to record ''work-related'' injuries and illnesses. It is implicit in this wording that there must be a causal connection between the employment and the injury or illness before the case is recordable. For most types of industrial accidents involving traumatic injuries, such as amputations, fractures, burns and electrocutions, a causal connection is easily determined because the injury arises from forces, equipment, activities, or conditions inherent in the employment environment. Thus, there is general agreement that when an employee is struck by or caught in moving machinery, or is crushed in a construction cave-in, the case is work-related. It is also accepted that a variety of illnesses are associated with exposure to toxic substances, such as lead and cadmium, used in industrial processes. Accordingly, there is little question that cases of lead or cadmium poisoning are work-related if the employee is exposed to these substances at work.

On the other hand, a number of injuries and illnesses that occur, or manifest themselves, at work are caused by a combination of occupational factors, such as performing job-related bending and lifting motions, and factors personal to the employee, such as the effects of a pre-existing medical condition. In many such cases, it is likely that occupational factors have played a tangible role in causing the injury or illness, but one that cannot be readily quantified as ''significant'' or ''predominant'' in comparison with the personal factors involved.

Injuries and illnesses also occur at work that do not have a clear connection to a specific work activity, condition, or substance that is peculiar to the employment environment. For example, an employee may trip for no apparent reason while walking across a level factory floor; be sexually assaulted by a co-worker; or be injured accidentally as a result of an act of violence perpetrated by one co-worker against a third party. In these and similar cases, the employee's job-related tasks or exposures did not create or contribute to the risk that such an injury would occur. Instead, a causal connection is established by the fact that the injury would not have occurred but for the conditions and obligations of employment that placed the employee in the position in which he or she was injured or made ill.

The theory of causation OSHA should require employers to use in determining the work-relationship of injuries and illnesses was perhaps the most important issue raised in this rulemaking. Put simply, the issue is essentially whether OSHA should view cases as being work-related under a ''geographic'' or ''positional'' theory of causation, or should adopt a more restrictive test requiring that the occupational cause be quantified as ''predominant,'' or ''significant,'' or that the injury or illness result from activities uniquely occupational in nature. This issue generated substantial comment during this rulemaking, and the Agency's evaluation of the various alternative tests, and its decision to continue its historic test, are discussed below.

The final rule's test for work-relationship and its similarity to the former and proposed rules.—The final rule requires that employers consider an injury or illness to be ''work-related'' if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness. Work relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, unless an exception in § 1904.5(b)(2) specifically applies.

Under paragraph 1904.5(b)(1), the ''work environment'' means ''the establishment and other locations where one or more employees are working or are present as a condition of their employment. The work environment includes not only physical locations, but also equipment or materials used by the employee during the course of his or her work.''

The final rule's definition of work-relationship is essentially the same as that in both the former and proposed rules except for the final rule's requirement that the work event or exposure ''significantly'' aggravate a

pre-existing injury or illness. The *Guidelines* interpreting the former rule stated that

> Work-relationship is established under the OSHA recordkeeping system when the injury or illness results from an event or exposure in the work environment. The work environment is primarily composed of: (1) The employer's premises, and (2) other locations where employees are engaged in work-related activities or are present as a condition of their employment. (Ex. 2 at p. 32).

The proposed rule also contained a similar definition of ''work-related'' and ''work environment.'' The only significant difference between the proposed and the final rule definitions is that the proposed rule also would not have required a ''significant'' aggravation of a pre-existing condition before it became recordable; under the proposal, any aggravation would have been sufficient (see 61 FR 4059).

The Alternative Tests for Work-Relationship

Although OSHA proposed to continue its existing definition of work-relationship, it sought comment on the following three alternative tests:

1. Exclude cases with any evidence of non-work etiology. Only cases where the work event or exposure was the *sole* causative factor would be recorded;
2. Record only cases where work was the *predominant* causative factor;
3. Record all cases where the work event or exposure had *any possibility* of contributing to the case (emphasis added). (61 FR 4045)

Comments on the ''Quantified Occupational Cause'' Test

The first two alternative tests described in the proposal would have required the employer to quantify the contribution of occupational factors as compared to that of personal factors. These tests are referred to in the Legal Authority section, and in this preamble, as the ''quantified occupational cause'' tests. Of these tests, Alternative 2—record only injuries and illnesses predominantly caused by occupational factors—received the most comment. Typical of these comments were those of the Dow Chemical Company, which expressed the view of many in industry that ''[a] system that labels an injury or illness attributable to the workplace even though the workplace contribution may be insignificant does not lead to an effective, credible or accurate program'' (Ex. 15: 335). Other commenters stated that recording only those cases where work was the predominant cause would improve the system by focusing attention on cases that are amenable to employer abatement (see, *e.g.*, Exs. 22, 15: 13, 27, 34, 38, 52, 60, 69, 71, 72, 82, 97, 102, 108, 109, 122, 136, 137, 141, 146, 147, 149, 152, 154, 159, 163, 169, 171, 174, 176, 181, 197, 198, 199, 200, 201, 214, 218, 224, 230, 231, 238, 239, 260, 262, 265, 266, 272, 273, 277, 278, 287, 288, 290, 297, 301, 302, 303, 307, 313, 317, 318, 330, 335, 346, 352, 353, 370, 375, 382, 378, 383, 384, 386, 388, 396, 401, 402, 404, 405, 425, 426, 430).

Some commenters (see, *e.g.*, Exs. 15: 185, 199, 205, 332, 338, 349, 354, 358, 375, 421, 440) offered a slight modification on Alternative 2. They suggested that using a term other than predominant, such as ''substantial'' or ''significant,'' would avoid the need to define ''predominant'' as a percentage. For example, United Technologies (Ex. 15: 440) opposed ''placing a percentage on the degree of contribution'' because doing so would not be practical. Further, according to this commenter, ''work relationship should be established in cases where the workplace contributed substantially to the injury or illness, as determined by an occupational physician.'' Arguing along the same lines, the American Petroleum Institute (API) (Ex. 15: 375) stated that it supported ''in principle the work-relatedness concept presented by OSHA as Alternative 2, but feels ''predominant'' might be too difficult to administer as a fundamental criterion. API proposes that work-relatedness should exist when an event or exposure in the workplace is a significant factor resulting in an injury or illness. * * *'' Organization Resource Counselors, Inc. (Ex. 15: 358) added: ''[T]he Congressional intent in drafting these sections was to require the collection of work-related information about significant work-related injuries and illnesses.'' The General Electric Company (Ex. 15: 349) said that ''OSHA needs to allow the facility the flexibility to record only those cases that are ''more likely than not'' related to workplace exposure or tasks. This determination can be made during the incident investigation. A good test of work-relatedness is whether the injury would have been prevented by full compliance with the applicable OSHA standard.''

Proposed Alternative 1, which would have required the recording only of cases where work was the sole cause, was also supported by a large number of commenters (see, *e.g.*, Exs. 15: 9, 39, 87, 95, 119, 123, 145, 151, 152, 179, 180, 183, 185, 204, 205, 225, 229, 234, 242, 259, 263, 269, 270, 304, 341, 363, 377, 389, 393, 414, 433, 443). Typical of this view was the comment of the American Health Care Association (Ex. 15: 341):

> If OSHA's primary concern is to address those workplace hazards or risks that cause or may cause employee injury/illness then the agency should confine recordability to those injuries and illnesses that are directly caused by a workplace event or exposure. This approach, in turn, will focus the employer's attention on those unsafe workplace conditions that need to be corrected to protect all workers exposed to or at risk from the unsafe conditions.

The National Federation of Independent Business (Ex. 15: 304) supported Alternative 1 ''because under such a system evidence of non-work-related factors is excluded thus the decision-making process is dramatically simplified and the tally is very credible.'' The Painting and Decorator Contractors of America (Ex. 15: 433) added: ''[T]his approach is also consistent with OSHA's intent (and the Congressional mandate in the Paperwork Reduction Act of 1995) to reduce compliance burdens as this would be the simplest method for employers to apply.''

Comments on the ''Unique Occupational Activities'' Test

Some commenters favored a closely related test for work relationship that would place primary emphasis on the nature of the activity that the employee was engaged in when injured or made ill. This test is referred to the Legal Authority section and in this preamble section as the ''unique occupational activities'' test. Its supporters argued that whether an injury or illness occurs or manifests itself at work is less important than whether or not the harm has been caused by activities or processes peculiar to the workplace. The AISI argued that:

> [I]t is clear that Congress intended OSHA's authority to regulate to be limited to ''occupational hazards'' and conceived of such hazards as ''processes and materials'' peculiar to the workplace. * * * Congress did not give OSHA the authority to regulate hazards if they ''grow out of economic and social factors which operate primarily outside the workplace. The employer neither controls nor creates these factors as he controls or creates work processes and materials.'' Congress was concerned with dangerous conditions peculiar to the workplace; it did not have in mind the recording of illnesses simply because they appear at work (internal citations omitted) (Ex. 15: 395).

Dow Chemical made a similar point in arguing that the criteria for determining work-relationship should include whether the activity the employee was engaged in at the time of the injury or onset of illness was for the direct benefit of the employer or was a required part of the job (Ex. 15: 335B).

According to Dow, the activity-based test would be more accurate than the geographic presumption (OSHA's historic test) because it would omit injuries due to hazards beyond the employer's control:

> Examples to illustrate this point include the employee who during his break attempts to remove a plastic insert in a condiment container with a knife and ends up cutting himself which requires three stitches. This activity, while it happened on company grounds, was not for the direct benefit of the company nor a requirement of his job, and there was no way for the employer to prevent it (Ex. 15: 335B).

Comments on OSHA's Historical Test

A significant number of commenters supported OSHA's long-standing test in which work factors must be a cause, but not necessarily a ''significant'' or ''predominant'' cause, and a geographic presumption applies if ''events or exposures'' in the work environment either caused or contributed to the resulting condition, or aggravated a pre-existing condition (see, *e.g.*, Exs. 15: 74, 153, 362, 369, 394, 407, 418, 429). For example, NIOSH (Ex. 15: 407) favored this approach because ''[o]verreported cases can be identified and accounted for in data analysis, in contrast to the other alternatives which stress specificity at the expense of sensitivity and would result in unreported cases.'' The AFL–CIO argued that:

> * * * [c]apturing all workplace illnesses and injuries, even those for which the predominant cause cannot be proven to be work-related, can lead to early recognition of problems and abatement of hazardous conditions. Our experience has shown us that when comprehensive records of all possible cases are kept, patterns of injury and illness emerge, enabling us to target problem areas/factors that previously may not have been associated with that specific work environment. The inclusion of all cases will lead to prevention strategies that can reduce the risk of serious illness and injury to workers. Inclusion of all cases that have a workplace link will also assist in the recognition of diseases that are caused by synergistic effects. (Ex. 15: 418)

The American Industrial Hygiene Association (AIHA) argued that continuing OSHA's historic approach to work-relationship is particularly important in the case of occupational illnesses because:

> Occupational illnesses differ from injuries in that minor or early symptoms of illness are often an important indicator of a more serious disease state, while a minor injury usually goes away without further developments. By the time serious disabling symptoms have surfaced. a disease may be very far progressed and irreversible. Training courses such as Hazard Communication are geared toward educating the workforce to recognize and report symptoms of overexposure, presumably for disease prevention. AIHA does not want this information to be de-emphasized or lost (Ex. 15: 153).

Comments on the ''Mere Possibility'' Test

Alternative 3 described in the proposal would have required that an injury or illness be considered work related ''if the worker ever experienced a workplace event or exposure that had any possibility of playing a role in the case.'' This ''mere possibility'' test is substantially different than OSHA's historical definition of work-relationship, which required that the injury or illness have a tangible connection with the work environment. Although some commenters supported Alternative 3, apparently on the assumption that it was in fact OSHA's proposed definition, analysis of these comments suggests that the parties involved recognized that an injury must have a real, not merely theoretical, link to work to be work-related. No commenter suggested a rationale for recording cases having only a theoretical or speculative link to work.

OSHA's Reasons for Rejecting the Alternative Tests for Work-Relationship

OSHA has given careful consideration to all of the comments and testimony received in this rulemaking and has decided to continue to rely in the final rule on the Agency's longstanding definition of work-relationship, with one modification. That modification is the addition of the word ''significantly'' before ''aggravation'' in the definition of work-relatedness set forth in final rule section 1904.5. The relevant portion of the section now states ''an injury or illness is to be considered work-related if an event or exposure in the work environment either caused or contributed to the injury or illness or *significantly* aggravated a pre-existing injury or illness'' (emphasis added).

In the final rule, OSHA has restated the presumption of work-relationship to clarify that it includes any non-minor injury or illness occurring as a result of an event or exposure in the work environment, unless an exception in paragraph 1904.5(b)(2) specifically applies. OSHA believes that the final rule's approach of relying on the geographic presumption, with a limited number of exceptions, is more appropriate than the alternative approaches, for the following reasons.

The Geographic Presumption Is Supported by the Statute

One important distinction between the geographic test for causation and the alternative causation tests is that the geographic test treats a case as work-related if it results in whole or in part from an event or exposure occurring in the work environment, while the alternative tests would only cover cases in which the employer can determine the degree to which work factors played a causal role. Reliance on the geographic presumption thus covers cases in which an event in the work environment is believed likely to be a causal factor in an injury or illness but the effect of work cannot be quantified. It also covers cases in which the injury or illness is not caused by uniquely occupational activities or processes. These cases may arise, for example, when: (a) an accident at work results in an injury, but the cause of the accident cannot be determined; (b) an injury or illness results from an event that occurs at work but is not caused by an activity peculiar to work, such as a random assault or an instance of horseplay; (c) an injury or illness results from a number of factors, including both occupational and personal causes, and the relative contribution of the occupational factor cannot be readily measured; or (d) a pre-existing injury or illness is significantly aggravated by an event or exposure at work.

As discussed in the Legal Authority section, the statute's language and the Legislative History support a definition of work-relationship that encompasses all injuries and illnesses resulting from harmful events and exposures in the work environment, not only those caused by uniquely occupational activities or processes. A number of commenters acknowledged the broad purposes served by OSHA's recordkeeping requirements and urged continued reliance on the former rule's definition of ''work-related'' (see, *e.g.*, Exs. 15: 65, 198, 350, 369, 418). For example, the AFL–CIO noted, ''[o]ur experience has shown us that when comprehensive records of all possible cases are kept, patterns of injury and illness emerge, enabling us to target problem areas/factors that previously may not have been associated with that specific work environment'' (Ex. 15: 418) (emphasis added).

On the other hand, those commenters favoring the ''quantified occupational cause'' test or the ''unique occupational activity'' test maintained that injury and illness records have more limited functions. Some commenters argued that because OSHA's mission is to

eliminate preventable occupational injuries and illnesses, the determination of work-relationship must turn on whether the case could have been prevented by the employer's safety and health program. The Dow Chemical Company expressed this view as follows:

> [T]he goal of this recordkeeping system should be to accurately measure the effectiveness of safety and health programs in the workplace. Activities where safety and health programs could have no impact on preventing or mitigating the condition should not be logged and included in the Log and Summary nor used by OSHA to determine its inspection schedule. If the event was caused by something beyond the employer's control it should not be considered a recordable event that calls into question a facility's safety and health program.
>
> . . . Credibility in this regulation rests on whether the recorded data accurately reflects the safety and health of the workplace. Including events where the workplace had virtually no involvement undermines the credibility of the system and results in continued resistance to this regulation (Ex. 15: 335B).

The law firm of Constangy, Brooks and Smith, LLC, urged OSHA to adopt the proposal's second alternative (''predominant cause'') because cases that are ''predominantly caused by workplace conditions'' are the ones most likely to be preventable by workplace controls. Their comment stated, ''[s]ince OSHA's ultimate mission is the prevention of workplace injuries and illnesses, it is reasonably necessary to require recording only when the injury or illness can be prevented by the employer'' (Ex. 15–345). Other commenters opposed the recording of cases in which the injury or illness arises while the employee is on break, in the rest room, or in storage areas located on the employer's premises. These commenters claimed that use of the geographic presumption results in recording many injuries and illnesses that have little or no relationship to the work environment (see, *e.g.*, Exs. 15: 231, 423, 424G).

OSHA believes that the views of Dow Chemical and others in support of the proposal's alternative tests for work-relationship reflect too narrow a reading of the purposes served by the OSHA injury and illness records. Certainly, one important purpose for recordkeeping requirements is to enable employers, employees, and OSHA to identify hazards that can be prevented by compliance with existing standards or recognized safety practices. However, the records serve other purposes as well, including providing information for future scientific research on the nature of causal connections between the work environment and the injuries and illnesses sustained by employees. For example, the records kept by employers under Part 1904 produced useful data on workplace assaults and murders, which has permitted OSHA, employers, and others to focus on the issue of violence in the workplace. This has led, in turn, to efforts to reduce the number of such cases by implementing preventive measures. Although this issue was not anticipated by the 1904 system, the broad collection of injury, illness and fatality data allowed useful information to be extracted from the 1904 data. As discussed in the Legal Authority section, these purposes militate in favor of a general presumption of work-relationship for injuries and illnesses that result from events or exposures occurring in the work environment, with exceptions for specific types of cases that may safely be excluded without significantly impairing the usefulness of the national job-related injury and illness database.

At the same time, OSHA is sensitive to the concerns of some commenters that the injury and illness records are perceived as a measure of the effectiveness of the employer's compliance with the Act and OSHA standards. OSHA emphasizes that the recording of an injury or illness on the Log does not mean that a violation has occurred. The explanatory materials accompanying the revised OSHA Forms 300 and 301 contain the following statement emphasizing this point: ''Cases listed on the Log of Work-Related Injuries and Illnesses are not necessarily eligible for Workers Compensation or other insurance benefits. Listing a case on the Log does not mean that the employer or worker was at fault or that an OSHA standard was violated.''

The Alternative Tests for Work-Relationship Will Likely Lead Both to Inconsistent Determinations and to Underreporting of Cases

Under the first two alternative tests for work-relationship described in the proposal, the decision on work-relationship would depend upon the degree to which the injury or illness resulted from distinctly occupational causes. Whether labeled ''sole cause,'' ''predominant cause,'' or ''significant cause,'' these alternative tests would require the employer, in each case, to distinguish between the occupational and non-occupational causal factors involved, and to weigh the contribution of the occupational factor or factors. Requiring the occupational cause to be quantified in this way creates practical problems militating against the use of these alternative tests in the final recordkeeping rule.

The most serious problem is that there is no reliable, objective method of measuring the degree of contribution of occupational factors. The absence of a uniform methodology for assessing the extent of work contribution caused several industry commenters to endorse the former rule's position on work-relationship. For example, the American Automobile Manufacturers Association (AAMA) noted that an ideal system would focus on cases in which the work environment was a major contributor to the injury or illness. Nevertheless, the AAMA argued against adopting the predominant cause test, stating: ''until a system is developed in which employers can measure objectively and consistently whether or not the work environment is a major contributor to a workplace injury or illness, we favor continuing the definition of work-relationship as it currently exists'' (Ex. 15: 409). The Ford Motor Co. also argued in favor of continuing the existing definition:

> Ford feels that the work environment should be a major contributor to an injury or illness for the case to be considered work-related. However, we are unsure how employers can measure objectively, consistently and equally whether the work environment is a major contributor. The use of a checklist by a health care provider to determine whether the work environment was a major contributor for a case to be considered work-related would be overly burdensome and subjective. Until a system is developed by which employers can measure objectively, consistently and equally whether or not the work environment is a major contributor to a workplace injury or illness, we favor continuing the definition of work relationship as it currently exists (Ex. 15: 347).

Based on a review of the record, OSHA agrees with those commenters who supported a continuation of the Agency's prior practice with regard to reliance on the geographic presumption for determinations of work-relatedness. OSHA finds that this approach, which includes all cases with a tangible connection with work, better serves the purposes of recordkeeping. Accordingly, the final rule relies on the geographic presumption, with a few limited exceptions, as the recordkeeping system's test for work-relationship.

Who Makes the Determination?

In addition to the definition of work-relatedness, commenters addressed the issue of who should make the determination of work-relatedness in a given case (see, *e.g.*, Exs. 15: 27, 35, 102, 105, 127, 193, 221, 281, 305, 308, 324, 325, 341, 345, 347, 385, 387, 390, 392,

397, 420). Some commenters believed that a trained medical professional should make this determination, while others argued that the employer should make the ultimate decision about the work-relatedness of occupational injuries and illnesses. Some supported the use of the work-relatedness checklist for specific disorders included by OSHA in the proposal. For example, the American Public Health Association (Ex. 15: 341) commented:

> We also believe that work-relatedness should only be established by the documented determination of a qualified health care provider with specific training related to the type of case reported. OSHA's checklist for determining work-relatedness. . . .should be used and expanded to include potentially recordable cases, i.e., excluding first aid treatment.

The Dow Corning Corporation (Ex. 15: 374) argued that the employer should make the determination, albeit with the assistance of a health care professional:

> This assessment process should include interviews with knowledgeable people regarding the duties and hazards of the employee's job tasks in addition to the employee interview. If inaccurate or misleading information is given to the health care provider improper or inaccurate conclusions may be reached with regard to the incident cause. A health care provider's assessment of work-relationship is typically viewed as difficult to overcome, even if it is made with incomplete information. We recommend that the health care provider's checklist be used as only one input in the work-relationship decision and that the final decision should still rest with the employer.

Deere and Company (Ex. 15: 253) opposed leaving the determination of work-relatedness to a health care professional:

> We strongly disagree with any provision that would allow a physician to make a final determination of work-relatedness. The only time a physician should have any input into the actual determination of work-relatedness is if they are knowledgeable of the employer's workplace environment and the specific job tasks performed by employees. Frequently, physicians will state that a condition was caused by an employee's job without having any knowledge of the specific tasks being performed by the employee. This is an unacceptable usurpation of employers' rights and we oppose any attempt to codify it in a federal regulation.

However, several participants opposed making any work-relatedness checklist mandatory (such as the one OSHA proposed) (see, *e.g.*, Exs. 15: 68, 170, 201, 283, 434). The American Trucking Association's comment (Ex. 15: 397) was typical of this view:

> We do not, however, support a requirement that employers must use a mandatory checklist to determine work-relatedness. . . . Because the checklist asks for medical information, the employer would find itself in conflict with the confidentiality requirements imposed under the Americans With Disabilities Act. 29 C.F.R. § 1630.14. Moreover, a mandatory checklist would be unnecessarily time-consuming and subjective. Finally, we note that inclusion of item 5(b), ''possible work contribution,'' biases the checklist in favor of work-relatedness. In the absence of a clear indication of whether or not the workplace caused or substantially caused the condition, asking a provider or employee if it were ''possible'' that the workplace contributed to or aggravated the injury/illness invites an affirmative response.

OSHA has concluded that requiring employers to rely on a health care professional for the determination of the work-relatedness of occupational injuries and illnesses would be burdensome, impractical, and unnecessary. Small employers, in particular, would be burdened by such a provision. Further, if the professional is not familiar with the injured worker's job duties and work environment, he or she will not have sufficient information to make a decision about the work-relatedness of the case. OSHA also does not agree that health care professional involvement is necessary in the overwhelming majority of cases. Employers have been making work-relatedness determinations for more than 20 years and have performed this responsibility well in that time. This does not mean that employers may not, if they choose, seek the advice of a physician or other licensed health care professional to help them understand the link between workplace factors and injuries and illnesses in particular cases; it simply means that OSHA does not believe that most employers will need to avail themselves of the services of such a professional in most cases.

Accordingly, OSHA has concluded that the determination of work-relatedness is best made by the employer, as it has been in the past. Employers are in the best position to obtain the information, both from the employee and the workplace, that is necessary to make this determination. Although expert advice may occasionally be sought by employers in particularly complex cases, the final rule provides that the determination of work-relatedness ultimately rests with the employer.

The Final Rule's Exceptions to the Geographic Presumption

Paragraph 1904.5(b)(2) of the final rule contains eight exceptions to the work environment presumption that are intended to exclude from the recordkeeping system those injuries and illnesses that occur or manifest in the work environment, but have been identified by OSHA, based on its years of experience with recordkeeping, as cases that do not provide information useful to the identification of occupational injuries and illnesses and would thus tend to skew national injury and illness statistics. These eight exceptions are the only exceptions to the presumption permitted by the final rule.

(i) *Injuries or illnesses will not be considered work-related if, at the time of the injury or illness, the employee was present in the work environment as a member of the general public rather than as an employee.* This exception, which is codified at paragraph 1904.5(b)(2)(i), is based on the fact that no employment relationship is in place at the time an injury or illness of this type occurs. A case exemplifying this exception would occur if an employee of a retail store patronized that store as a customer on a non-work day and was injured in a fall. This exception allows the employer not to record cases that occur outside of the employment relationship when his or her establishment is also a public place and a worker happens to be using the facility as a member of the general public. In these situations, the injury or illness has nothing to do with the employee's work or the employee's status as an employee, and it would therefore be inappropriate for the recordkeeping system to capture the case. This exception was included in the proposal, and OSHA received no comments opposing its adoption.

(ii) *Injuries or illnesses will not be considered work-related if they involve symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.* OSHA's recordkeeping system is intended only to capture cases that are caused by conditions or exposures arising in the work environment. It is not designed to capture cases that have no relationship with the work environment. For this exception to apply, the work environment cannot have caused, contributed to, or significantly aggravated the injury or illness. This exception is consistent with the position followed by OSHA for many years and reiterated in the final rule: that any job-related contribution to the injury or illness makes the incident work-related, and its corollary—that any injury or illness to which work makes no actual contribution is not work-related. An example of this type of injury would be a diabetic incident that occurs while an employee is working. Because no event or exposure at work contributed in any

way to the diabetic incident, the case is not recordable. This exception allows the employer to exclude cases where an employee's non-work activities are the sole cause of the injury or illness. The exception was included in the proposal, and OSHA received no comments opposing its adoption.

(iii) *Injuries and illnesses will not be considered work-related if they result solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity such as blood donation, physical, flu shot, exercise classes, racquetball, or baseball.* This exception allows the employer to exclude certain injury or illness cases that are related to personal medical care, physical fitness activities and voluntary blood donations. The key words here are ''solely'' and ''voluntary.'' The work environment cannot have contributed to the injury or illness in any way for this exception to apply, and participation in the wellness, fitness or recreational activities must be voluntary and not a condition of employment.

This exception allows the employer to exclude cases that are related to personal matters of exercise, recreation, medical examinations or participation in blood donation programs when they are voluntary and are not being undertaken as a condition of work. For example, if a clerical worker was injured while performing aerobics in the company gymnasium during his or her lunch hour, the case would not be work-related. On the other hand, if an employee who was assigned to manage the gymnasium was injured while teaching an aerobics class, the injury would be work-related because the employee was working at the time of the injury and the activity was not voluntary. Similarly, if an employee suffered a severe reaction to a flu shot that was administered as part of a voluntary inoculation program, the case would not be considered work-related; however, if an employee suffered a reaction to medications administered to enable the employee to travel overseas on business, or the employee had an illness reaction to a medication administered to treat a work-related injury, the case would be considered work-related.

This exception was included in the proposal, and received support from a number of commenters (see, *e.g.*, Exs. 15: 147, 181, 188, 226, 281, 304, 341, 345, 363, 348, 373). Other commenters supported this proposal but suggested consolidating it with the proposed exception for voluntary activities away from the employer's establishment (see, *e.g.*, Exs. 15–176, 231, 248, 249, 250, 273, 301). OSHA has decided not to combine this exception with another exception because questions are often asked about injuries and illnesses that arise at the employer's establishment and the Agency believes that a separate exception addressing voluntary wellness programs and other activities will provide clearer direction to employers.

(iv) *Injuries and illnesses will not be considered work-related if they are solely the result of an employee eating, drinking, or preparing food or drink for personal consumption (whether bought on the premises or brought in).* This exception responds to a situation that has given rise to many letters of interpretation and caused employer concern over the years. An example of the application of this exception would be a case where the employee injured himself or herself by choking on a sandwich brought from home but eaten in the employer's establishment; such a case would not be considered work-related under this exception. On the other hand, if the employee was injured by a trip or fall hazard present in the employer's lunchroom, the case would be considered work-related. In addition, a note to the exception makes clear that if an employee becomes ill as a result of ingesting food contaminated by workplace contaminants such as lead, or contracts food poisoning from food items provided by the employer, the case would be considered work-related. As a result, if an employee contracts food poisoning from a sandwich brought from home or purchased in the company cafeteria and must take time off to recover, the case is not considered work related. On the other hand, if an employee contracts food poisoning from a meal provided by the employer at a business meeting or company function and takes time off to recover, the case would be considered work related. Food provided or supplied by the employer does not include food purchased by the employee from the company cafeteria, but does include food purchased by the employer from the company cafeteria for business meetings or other company functions. OSHA believes that the number of cases to which this exception applies will be few. This exception was included in the proposal and received generally favorable comments (see, *e.g.*, Exs. 15: 31, 78, 105, 159, 176, 181, 184, 188, 345, 359, 428).

(v) *Injuries and illnesses will not be considered work-related if they are solely the result of employees doing personal tasks (unrelated to their employment) at the establishment outside of their assigned working hours.* This exception, which responds to inquiries received over the years, allows employers limited flexibility to exclude from the recordkeeping system situations where the employee is using the employer's establishment for purely personal reasons during his or her off-shift time. For example, if an employee were using a meeting room at the employer's establishment outside of his or her assigned working hours to hold a meeting for a civic group to which he or she belonged, and slipped and fell in the hallway, the injury would not be considered work-related. On the other hand, if the employee were at the employer's establishment outside his or her assigned working hours to attend a company business meeting or a company training session, such a slip or fall would be work-related. OSHA also expects the number of cases affected by this exception to be small. The comments on this exception are discussed in more detail in the section concerning proposed Exception B–5, Personal Tasks Unrelated To Employment Outside of Normal Working Hours, found later in this document.

(vi) *Injuries and illnesses will not be considered work-related if they are solely the result of personal grooming, self-medication for a non-work-related condition, or are intentionally self-inflicted.* This exception allows the employer to exclude from the Log cases related to personal hygiene, self-administered medications and intentional self-inflicted injuries, such as attempted suicide. For example, a burn injury from a hair dryer used at work to dry the employee's hair would not be work-related. Similarly, a negative reaction to a medication brought from home to treat a non-work condition would not be considered a work-related illness, even though it first manifested at work. OSHA also expects that few cases will be affected by this exception.

(vii) *Injuries will not be considered work-related if they are caused by motor vehicle accidents occurring in company parking lots or on company access roads while employees are commuting to or from work.* This exception allows the employer to exclude cases where an employee is injured in a motor vehicle accident while commuting from work to home or from home to work or while on a personal errand. For example, if an employee was injured in a car accident while arriving at work or while leaving the company's property at the end of the day, or while driving on his or her lunch hour to run an errand, the case would not be considered work-related. On the other hand, if an employee was injured in a car accident while leaving

the property to purchase supplies for the employer, the case would be work-related. This exception represents a change from the position taken under the former rule, which was that *no* injury or illness occurring in a company parking lot was considered work-related. As explained further below, OSHA has concluded, based on the evidence in the record, that some injuries and illnesses that occur in company parking lots are clearly caused by work conditions or activities—*e.g.*, being struck by a car while painting parking space indicators on the pavement of the lot, slipping on ice permitted to accumulate in the lot by the employer—and by their nature point to conditions that could be corrected to improve workplace safety and health.

(viii) *Common colds and flu will not be considered work-related.*

Paragraph 1904.5(b)(2)(viii) allows the employer to exclude cases of common cold or flu, even if contracted while the employee was at work. However, in the case of other infectious diseases such as tuberculosis, brucellosis, and hepatitis C, employers must evaluate reports of such illnesses for work relationship, just as they would any other type of injury or illness.

(ix) *Mental illness will not be considered work-related unless the employee voluntarily provides the employer with an opinion from a physician or other licensed health care professional with appropriate training and experience (psychiatrist, psychologist, psychiatric nurse practitioner, etc.) stating that the employee has a mental illness that is work-related.*

Exception (ix) is an outgrowth of proposed Exception B–11—Mental illness, unless associated with post-traumatic stress. There were more than 70 comments that addressed the issue of mental illness recordkeeping. Two commenters suggested that OSHA postpone any decision on the issue: the National Safety Council (Ex. 15: 359) recommended further study, and the AFL–CIO (Ex. 15: 418) stated that the problem of mental illness in the workplace was so prevalent and so important that it should be handled in a separate rulemaking devoted to this issue.

A few commenters, including NIOSH (Ex. 15: 407), the American Psychological Association (Ex. 15: 411), the AFL–CIO (Ex. 14: 418), the United Steelworkers of America (Ex. 15: 429), and the United Brotherhood of Carpenters Health and Safety Fund of North America (Ex. 15: 350) argued that recording should not be limited to post-traumatic stress as OSHA had proposed but should instead include a broader range of mental disorders. The primary arguments of this group of comments were:

- Workers are afflicted with a number of mental disorders caused or exacerbated by work, and the statistics should include those disorders just as they include physical disorders;
- If the records include only post-traumatic stress as a mental disorder, many work-related cases of mental illness will go unreported (6,000 mental illness cases are reported to the BLS and involve days away from work, but less than 10% of these are post-traumatic stress cases), and the statistics will be skewed and misinterpreted;
- Workers' compensation does not restrict compensable mental illnesses to post-traumatic stress cases;
- Employers are recording and reporting all mental disorders now and thus would not be burdened by continuing the practice.

Arguments in support of treating mental illnesses no differently from any other injury or illness were made by the American Psychological Association (Ex. 15: 411):

> The American Psychological Association strongly opposes OSHA's proposal to consider a mental illness to be work related only if it is ''associated with post-traumatic stress.'' We feel that this proposal disregards an accumulating body of research showing the relationship between mental health/illness and workplace stressors. Mental illness associated with post traumatic stress is only one form of mental illness and use of this singular definition would exclude much of the mental illness affecting our nation's workforce.
>
> Job stress is perhaps the most pervasive occupational health problem in the workplace today. There are a number of emotional and behavioral results and manifestations of job stress, including depression and anxiety. These mental disorders have usually been captured under the ''mental illness'' category but would no longer be recognized if the proposed reporting guidelines were enacted.
>
> The 1985 National Health Interview Survey (Shilling & Brackbill, 1987) indicated that approximately 11 million workers reported health-endangering levels of ''mental stress'' at work. A large and growing body of literature on occupational stress has identified certain job and organizational characteristics as having deleterious effects on the psychological and physical health of workers, including their mental health. These include high workload demands coupled with low job control, role ambiguity and conflict, lack of job security, poor relationships with coworkers and supervisors, and repetitive, narrow tasks (American Psychological Association, 1996). These include role stressors and demands in excess of control. More precise analyses reveal that specific occupations and job factors present particular risks. For example, machine-paced workers (involving limited worker control of job demands) have one of the highest levels of anxiety, depression, and irritation of 24 occupations studied (Caplan et al., 1975). Health professionals (*e.g.*, physicians, dentists, nurses, and health technologists) have higher than expected rates of suicide which is most often related to depression (Milham, 1983) and of alcohol and drug abuse (Hoiberg, 1982). Nurses and other health care workers have increased rates of hospitalizations for mental disorders (Gundersson & Colcord, 1982; Hoiberg, 1982). This information about specific risks within different occupations provides important information for possible intervention and training to improve conditions while at the same time, indicating the possibility of specific stressors that need to be addressed within the job. This type information would be lost with the proposed reporting guidelines.

Fourteen commenters opposed having to record mental illness cases of any kind (Exs. 15: 78, 133, 184, 248, 249, 250, 304, 348, 378, 395, 406, 409, 412, 424). Their primary arguments were:

- The diagnosis of mental illnesses is subjective and unreliable;
- It is often impossible, even for a health care professional, to determine objectively which mental disorders are work-related and which are not;
- Workers have a right to privacy about mental conditions that should not be violated; employers fear the risk of invasion of privacy lawsuits if they record these cases on ''public records''; because of confidentiality concerns, workers are unlikely to disclose mental illnesses, and employers will therefore be unable to obtain sufficient information to make recordability determinations;
- Mental illnesses are beyond the scope of the OSHA Act; Congress intended to include only ''recognized injuries or illnesses'';
- Recording mental disorders opens the door to abuse; workers may ''fake'' mental illnesses, and unions may encourage workers to report mental problems as a harassment tactic; and
- No useful statistics will be generated by such recording.

The American Iron and Steel Institute (AISI) (Ex.15: 395) expressed the concerns of the group of employers opposed to any recording of mental conditions:

> OSHA should eliminate its proposed recording requirements for mental illness. OSHA's proposed rule includes changes in an employee's psychological condition as an ''injury or illness,'' and [proposed] Appendix A presumes that mental illness ''associated with post-traumatic stress'' is work related. Employers, employees, and OSHA have been wrestling for 25 years with the proper recording of fairly simple injuries like back

injuries, sprains, and illnesses caused by chemical exposures. Requiring employers to record something as vague as psychological conditions will impose impossible burdens on employers (and compliance officers) and thus will create an unworkable recordkeeping scheme.

Moreover, too little is known about the etiology of most mental conditions to justify any presumption or conclusion that a condition that surfaces at work was ''caused'' by something in the work environment. It is hard to imagine a mental illness appearing at work that is not a manifestation of a preexisting condition or predisposition. Thus, the only sensible approach is to exclude all mental illnesses from recording requirements.

Many commenters from business and trade associations either agreed with OSHA's proposal or recommended an even stricter limitation on recordable mental disorders (see, *e.g.*, Exs. 33, 15: 27, 31, 38, 46, 79, 122, 127, 132, 153, 170, 176, 181, 199, 203, 226, 230, 231, 273, 277, 289, 301, 305, 307, 308, 313, 325, 332, 352, 353, 368, 384, 387, 389, 392, 410, 427, 430, 434). Points raised by these commenters included recommendations that OSHA should require:

- Recording only of those mental illnesses that arise from a single, work-related traumatic or catastrophic event, such as a workplace explosion or an armed robbery;
- Recording only of those mental illnesses that are directly and substantially caused by a workplace incident;
- Recording only of diagnosed mental illnesses resulting from a single workplace event that is recognized as having the potential to cause a significant and severe emotional response;
- Recognition only of post-traumatic stress cases or related disorders that include physical manifestations of illness and that are directly related to specific, objectively documented, catastrophic work-related events; and
- Recording only of diagnosed conditions directly attributable to a traumatic event in the workplace, involving either death or severe physical injury to the individual or a co-worker.

Several commenters suggested the use of a medical evaluation to determine diagnosis and/or work-relationship in cases of mental illness (see, *e.g.*, Exs. 15: 65, 78, 105, 127, 170, 181, 184, 226, 230). For example, the Aluminum Company of America (Ex. 15: 65) stated that:

OSHA should define mental health conditions for recordkeeping purposes as conditions diagnosed by a licensed physician or advanced health care practitioner with specialized psychiatric training (*i.e.*, psychiatric nurse practitioner). Work-relatedness of the mental health condition should be determined by a psychiatric independent medical evaluation.

A comment from the Department of Energy (Ex. 15: 163) stated that any diagnosis of mental illness should be made by at least two qualified physicians, and CONSOL Inc. (Ex. 15: 332) and Akzo Nobel (Ex. 15: 387) wanted the rule to require that any such diagnosis meet the criteria of the Diagnostic and Statistical Manual, Version IV (DSM–IV). Commenters had different opinions about the minimum qualifications necessary for a health care professional to make decisions about mental health conditions; specifically, some commenters urged OSHA to exclude ''counselors'' (Ex. 15: 226) or to include ''only psychiatrists and Ph.D. psychologists'' (Ex. 15: 184).

A number of commenters suggested excluding from the requirement to record any mental illness related to personnel actions such as termination, job transfer, demotions, or disciplinary actions (see, *e.g.*, Exs. 15: 68, 127, 136, 137, 141, 176, 184, 224, 231, 266, 273, 278, 301, 395, 424). The New York Compensation Board (Ex. 15: 68) noted that New York's workers' compensation law excludes such cases by specifying that mental injuries are compensable with the exception of injuries that are the ''direct consequence of a lawful personnel decision involving a disciplinary action, work evaluation, job transfer, demotion, or termination taken in good faith by the employer.''

Finally, several employers raised the issues of the privacy of an employee with a mental disorder, the need to protect doctor-patient confidentiality, and the potential legal repercussions of employers breaching confidentiality in an effort to obtain injury and illness information and in recording that information (see, *e.g.*, Exs. 15: 78, 153, 170, 195, 260, 262, 265, 277, 348, 392, 401, 406, 409). Some of these commenters suggested that an employer should only have the obligation to record after the employee has brought the condition to the attention of the employer, either directly or through medical or workers' compensation claims, and in no case should doctor-patient confidentiality be breached. (Issues related to confidentiality of the Log are discussed in detail in the summary and explanation of § 1904.35, *Employee Involvement*.)

After a review of the comments and the record on this issue, OSHA has decided that the proposed exception, which would have limited the work-relatedness (and thus recordability) of mental illness cases to those involving post-traumatic stress, is not consistent with the statute or the objectives of the recordkeeping system, and is not in the best interest of employee health. The OSH Act is concerned with both physical and mental injuries and illnesses, and in fact refers to ''psychological factors'' in the statement of Congressional purpose in section 2 of the Act (29 U.S.C. 651(b)(5)).

In addition, discontinuing the recording of mental illnesses would deprive OSHA, employers and employees, and safety and health professionals of valuable information with which to assess occupational hazards and would additionally skew the statistics that have been kept for many years. Therefore, the final rule does not limit recordable mental disorders to post traumatic stress syndrome or any other specific list of mental disorders. OSHA also does not agree that recording mental illnesses will lead to abuse by employees or others. OSHA has required the recording of these illnesses since the inception of the OSH Act, and there is no evidence that such abuse has occurred.

However, OSHA agrees that recording work-related mental illnesses involves several unique issues, including the difficulty of detecting, diagnosing and verifying mental illnesses; and the sensitivity and privacy concerns raised by mental illnesses. Therefore, the final rule requires employers to record only those mental illnesses verified by a health care professional with appropriate training and experience in the treatment of mental illness, such as a psychiatrist, psychologist, or psychiatric nurse practitioner. The employer is under no obligation to seek out information on mental illnesses from its employees, and employers are required to consider mental illness cases only when an employee voluntarily presents the employer with an opinion from the health care professional that the employee has a mental illness and that it is work related. In the event that the employer does not believe the reported mental illness is work-related, the employer may refer the case to a physician or other licensed health care professional for a second opinion.

OSHA also emphasizes that work-related mental illnesses, like other illnesses, must be recorded only when they meet the severity criteria outlined in § 1904.7. In addition, for mental illnesses, the employee's identity must be protected by omitting the employee's name from the OSHA 300 Log and instead entering ''privacy concern case'' as required by § 1904.29.

Exceptions Proposed but Not Adopted

The proposed rule contained eleven exceptions to the geographic presumption. Some of these exceptions are included in the final rule, and therefore are discussed above, while others were rejected for various reasons. The following discussion addresses those proposed exemptions not adopted in the final rule, or not adopted in their entirety.

Proposed Exception B–5. Personal Tasks Unrelated To Employment Outside of Normal Working Hours. The proposed rule included an exception for injuries and illnesses caused solely by employees performing personal tasks at the establishment outside of their normal working hours. Some aspects of this proposed exception have been adopted in the final, but others have not. Almost all the comments on this proposed exception supported it (see, *e.g.*, Exs. 15: 31, 78, 105, 121, 159, 281, 297, 336, 341, 350), and many suggested that the exception be expanded to include personal tasks conducted *during* work hours (see, *e.g.*, Exs. 15: 176, 184, 201, 231, 248, 249, 250, 273, 301, 335, 348, 374). Caterpillar, Inc. (Ex. 15: 201) offered an opinion representative of the views of these commenters: ''We agree with this exception but it should be expanded to include any personal tasks performed during work hours if the work environment did not cause the injury or illness. Expanding this exemption will be consistent with the exemptions for voluntary wellness program participation and eating, drinking, and preparing one's own food.''

One commenter disagreed with the proposed exception (the Laborers Safety and Health Fund of North America (Ex. 15: 310)) and cited as a reason the difficulty of determining the extent to which, for example, a case involving an employee misusing a hazardous chemical after hours because he or she did not receive the necessary Right-to-Know training from the employer would qualify for this exception.

Several commenters suggested that OSHA clarify what it meant by the terms ''personal tasks'' and ''normal working hours'' (see, *e.g.*, Exs. 15: 102, 304, 345). For example, a representative of Constangy, Brooks & Smith recommended that:

> More explanation be provided regarding the further limitation on this exclusion. For example, does this section of the proposal envision the exclusion of injuries and illnesses resulting from personal tasks performed during overtime (i.e., outside of normal working hours)? If I am injured while talking to my spouse on the phone during regular business hours, must the case be recorded, while if the same injury occurs during overtime, the case is non-recordable? Also, how are injuries to salaried employees (who are exempt from overtime) treated under this aspect of the proposal? I submit that if these issues are not fully ''fleshed out'' in the proposal or its preamble, this subparagraph will result in the creation of more questions than it resolves.

The National Federation of Independent Business (NFIB) (Ex. 15: 304) asked OSHA ''to specify that the 'normal working hours' refers to the work schedule of the employee not the employer. If this distinction is not made clear, this proposal arguably could deny this exemption to establishments which operate during non-standard operating hours (*e.g.*, 24 hours a day, weekends, after 5 PM, etc.)—and we assume this is not OSHA's intent.''

OSHA believes that injuries and illnesses sustained by employees engaged in purely personal tasks at the workplace, outside of their assigned working hours, are not relevant for statistical purposes and that information about such injuries and illnesses would not be useful for research or other purposes underlying the recordkeeping requirements. OSHA has therefore decided to include some parts of the proposed exception in the final rule. Additional language has been added to the exception since the proposal to clarify that the exception also applies when the employee is on the premises outside of his or her assigned working hours, as the NFIB pointed out.

OSHA does not agree, however, with those commenters who suggested that the exception be expanded to include personal tasks performed by employees during work hours. As discussed in preceding sections of this summary and explanation and in the Legal Authority discussion, there are strong legal and policy reasons for treating an injury or illness as work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a pre-existing condition. Under this ''but-for'' approach, the nature of the activity the employee was engaged in at the time of the incident is not relevant, except in certain limited circumstances. Moreover, OSHA believes that it would be difficult in many cases for employers to distinguish between work activities and personal activities that occur while the employee is on-shift. Accordingly, the final rule codifies parts of this proposed exception in paragraph 1904.5(b)(v) in the following form: ''The injury or illness is solely the result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours.''

Proposed Exception B–6. Cases Resulting From Acts of Violence by Family Members or Ex-spouses When Unrelated to Employment, Including Self-inflicted Injuries. The final rule does not exempt workplace violence cases from the Log, although it does allow employers to exclude cases that involve intentionally self-inflicted injuries. The final rule thus departs substantially from the proposal in this respect. The proposed exception, which would have exempted domestic violence and self-inflicted cases from the Log, drew many comments. The comments generally fell into four categories: (1) those urging OSHA to require the recording of all cases of violence occurring at the establishment; (2) those recommending that no violence cases at the establishment be recorded; (3) those recommending recordation only of violence cases perpetrated by certain classes of individuals; and (4) those urging OSHA to require the recording of cases involving violence related to employment without regard to the perpetrator. The comments on the proposed exception are discussed below.

No exemption/record all injuries and illnesses arising from violent acts. A number of commenters objected to OSHA's proposed exemption of domestic violence cases from the list of recordable injuries, arguing that all acts of violence occurring at the workplace should be recorded (see, *e.g.*, Exs. 15: 31, 54, 56, 88, 90, 91, 93, 94, 99, 101, 103, 104, 106, 111, 114, 115, 144, 186, 187, 238, 345, 362, 407, 418, 439). For example, the North Carolina Department of Labor stated that ''if an employer must log the injuries sustained as a result of workplace violence then the employer may also institute needed security measures to protect the employees at the establishment. An employer should be required to log any 'preventable' injury (above first aid) that an employee sustains at the establishment'' (Ex. 15: 186). The Miller Brewing Company also supported recording all acts of workplace violence, based on the following rationale: ''I envision a scenario involving an angry husband attempting to kill his wife but, because he is a ''bad shot,'' another employee is killed. Why should killing an innocent bystander be a reportable event, whereas a fatality involving a spouse is excluded?'' (Ex. 15: 442).

Exception for all violent acts. There were commenters who thought injuries and illnesses resulting from violence were outside of OSHA's purview and

should not be recorded at all (see, *e.g.*, Exs. 15: 28, 75, 96, 107, 203, 254, 289). For example, the Quaker Oats Company (Ex. 15: 289) stated that ''[w]orkplace violence in any form is a personal criminal act, and in no way, shape or form should violence be labeled under hazards in the workplace or even [be] monitored by OSHA. A person who may turn to violent behavior from family, personal, or job dispute is a matter of NLRB [National Labor Relations Board], law enforcement or state employment statutes, not industrial safety.'' The National Restaurant Association (Ex. 15: 96) agreed:

> Congress passed the Occupational Safety and Health Act to regulate workplace hazards dealing with the workplace environment or processes that employers could identify and possibly protect. The Congress did not contemplate that this statute would be used to redress incidents over which the employer has no ability to control, such as the unpredictability of workers or nonworkers committing violent, tortuous acts towards others. This issue was litigated unsuccessfully by OSHA in Secretary of Labor v. Megawest Financial, Inc., OSHRC Doc. No. 93–2879 (June 19, 1995). OSHA apparently is attempting in this NPR to obtain by regulatory fiat what was rejected by case law and to displace state tort law actions by using the OSH Act to police social behavior.

Recording work-related violence except acts of certain classes of individuals. There were many commenters who supported the proposed exception, which would only have excluded acts of violence on employees committed by family members and ex-spouses and self-inflicted injuries and illnesses. The proposed exception as drafted was supported by some commenters (see, *e.g.*, Exs. 15: 78, 198, 350, 359). Others thought the exception should be expanded to include not only family members and ex-spouses, but also live-in partners, friends, and other intimates (see, *e.g.*, Exs. 15: 80, 122, 153, 181, 213, 325, 363, 401), while others argued that the exemption should apply to the general public, i.e., to all people (see, *e.g.*, Exs. 15: 9, 111, 119, 151, 152, 179, 180, 239, 260, 262, 265, 272, 303, 304, 341, 356, 375, 401, 430).

Typical of comments in support of a broader exception were the remarks of the National Oilseed Processors Association (Ex. 15: 119):

> The only time violence in the work place should be considered work-related is when it is associated with a work issue and committed by an employee or other person linked to the business, *e.g.*, a customer. Any other act of violence is not under the control of the employer and should not be considered work-related.

Alabama Shipyard Inc. (Ex. 15: 152) added:

> Exempting acts of violence based strictly on acts committed by family members, a spouse, or when self-inflicted is too limited. Instead, the exemption should be based on the relationship of the perpetrator to the employer. The employer should be no more responsible for some random act of violence by a crazy individual walking in off the street who is in no way associated with the employer than it should be for an act of violence by a family member.

Southern California Edison (Ex. 15: 111) stated that ''violence is another example that should be excluded from being work-related if the employee personally knows the attacker. This would include family members or coworkers. Only those acts of violence that result from random criminal activity should be included (i.e., robbery, murder, etc.).'' TU Services (Ex. 15: 262) recommended ''that only cases that involve acts of violence that are the result of random criminal activity should be recorded. Cases that involve anyone with a personal relationship with the employee should be excluded.'' The American Feed Industry Association (Ex. 15: 204) and United Parcel Service (Ex. 15: 424), on the other hand, argued that cases involving workplace violence should only be recorded if the perpetrator was a fellow employee.

Record all violent acts directly related to employment regardless of who commits the act. Commenters favoring this approach suggested that violence by family members or others should be recorded if linked to work, but that all personal disputes should be exempt (see, *e.g.*, Exs. 15: 105, 146, 176, 184, 231, 273, 297, 301, 313, 336, 348, 352, 353, 374, 389, 392). The Workplace Health and Safety Council (Ex. 15: 313) proposed the following exception:

> Cases will not be considered work-related if they result solely from acts of violence committed by one's family, or ex-spouse, or other persons when unrelated to the worker's employment, including intentionally self-inflicted injuries. Violence by persons on the premises in connection with the employer's business (including thieves and former employees) is considered work related even if committed by one's family or ex-spouse.

The American Ambulance Association (Ex. 15: 226) stated simply: ''AAA believes that OSHA should define what is work-related violence and assume that all other acts are not work-related, and eliminate the family and non-family distinction.'' The United Auto Workers (Ex. 15: 438) agreed:

> Incidents of intentional violence should be recorded only if they arise from employment activities. Incidents between employees, or between employees and non-employees which rise from personal disputes should not be recorded. Existing data show that the number of incidents of interpersonal violence between coworkers or workers and intimates is small, although these incidents do get high visibility. Therefore, exclusion of these small number of cases will have little effect on statistical measures.

Some commenters urged OSHA to place some restrictions on the proposed exception. For example, two commenters argued that cases involving violence should only be recorded for occupations where there is a reasonable potential of encountering violence (Exs. 15: 335, 409). The American Automobile Manufacturers Association (AAMA) stated that:

> Workplace violence as a reasonable function of an employee's employment should be recorded, for example: a cashier injured in a robbery attempt at a 24-hour retail establishment. An example of ''unreasonable'' recordable workplace violence that should not be recordable (i.e., where an employee was simply ''in the wrong place at the wrong time'') would be a flight crew that perishes mid-flight from a terrorist's bomb. These cases have nothing to do with the individual's employer, only that they happened to be victims at the employer's place of employment. It is AAMA's understanding that the purpose of the subject standard is to collect information pertaining to injuries and illnesses that arise out of conditions in the workplace, with the end objective being to use that information to correct or mitigate these conditions so as to prevent additional injuries or illnesses.

Caterpillar Inc. (Ex. 15: 201) suggested that ''a predominant contributor concept, similar to that being proposed to help establish work-relatedness, could be utilized in cases where the clear cause of violence is not readily apparent.''

In the final rule, OSHA has decided not to exclude from recording those injury and illness cases involving acts of violence against employees by family members or ex-spouses that occur in the work environment or cases involving other types of violence-related injuries and illnesses. The final rule does exempt from recording those cases resulting from intentionally self-inflicted injuries and illnesses; these cases represent only a small fraction of the total number of workplace fatalities (three percent of all 1997 workplace violence fatalities) (BLS press release USDL 98–336, August 12, 1998). OSHA believes that injuries and illnesses resulting from acts of violence against employees at work are work-related under the positional theory of causation. The causal connection is usually established by the fact that the assault or other harmful event would not have

occurred had the employee not, as a condition of his or her employment, been in the position where he or she was victimized. Moreover, occupational factors are directly involved in many types of workplace violence, such as assaults engendered by disputes about working conditions or practices, or assaults on security guards or cashiers and other employees, who face a heightened risk of violence at work. Accordingly, OSHA does not accept the premise, advanced by some commenters, that workplace violence is outside the purview of the statute.

In some cases, acts of violence committed by a family member or ex-spouse at the workplace may be prevented by appropriate security measures enforced by employers. Moreover, information about workplace injuries due to assaults by family members or ex-spouses is relevant and should be included in the overall injury and illness data for statistical and research purposes. Omitting the proposed exception also obviates the need for employers to make distinctions among various degrees of personal relationships. Accordingly, the final rule does not allow employers to exclude injuries and illnesses resulting from violence occurring in the workplace from their Logs. However, some cases of violence will be excluded under § 1904.5(b)(2)(v), which exempts an injury or ilness that is solely the result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours. For example, if an employee arrives at work early to use a company conference room for a civic club meeting, and is injured by some violent act, the case would not be considered work related.

OSHA has decided to maintain the exclusion for intentionally self-inflicted injuries that occur in the work environment in the final rule. The Agency believes that when a self-inflicted injury occurs in the work environment, the case is analogous to one in which the signs or symptoms of a pre-existing, non-occupational injury or illness happen to arise at work, and that such cases should be excluded for the same reasons. (see paragraph 1904.5(b)(2)(ii)). The final rule at paragraph 1904.5(b)(2)(vi) therefore includes that the part of exception proposed that applied to injuries and illnesses that are intentionally self-inflicted.

Proposed Exception B–7. Parking Lots and Access Roads. This proposed exception, which in effect would have narrowed the definition of ''establishment'' to exclude company parking lots, had approximately equal numbers of commenters in favor and opposed. The final rule includes some aspects of the proposed exemption. In favor of recording injuries in parking lots and on access roads were the commenters represented by Exs. 24, 15: 41, 72, 310, 362. Typical of the views of this group was that of the Association of Operating Room Nurses (AORN) (Ex. 15: 72), which noted that:

> [e]mployee parking lots should be included in defining ''work-related.'' Perioperative nurses and other surgical service providers may be required on a ''call'' basis during the night hours. Consequently they enter and leave parking lots at unusual times when traffic in the lots is minimal. These providers may be at increased risk for random violence. Absent the ''call'' requirement, the employee would not be in the parking lot at the time of the injury. Further, if the employee is paid for travel time to and/or from the facility, injuries occurring during that period should be considered ''work-related.''

The AFL-CIO (Ex. 15: 362) added that employers may be less likely to provide lighting, security and other controls that could prevent violent assaults in parking lots and access roads if injuries occurring there are not recordable.

The opposite view, in support of the proposed exception for parking lots, was expressed by several employers (see, *e.g.*, Exs. 15: 27, 45, 176, 185, 195, 231, 248, 249, 250, 273, 289, 301, 304, 341, 363). The National Wholesale Druggists Association (NWDA) (Ex. 15: 185) supported the proposed exclusion:

> [i]nevitably, activities that take place in the company parking lot or on the company access road are not only outside of the employer's dominion and control but also are most often not related in any way to the employee's work. Including injuries that occur in these locations as part of the OSHA log would lead to an inaccurate reflection of injury data as a whole. OSHA should retain this exemption. An employer has no control over an employee's commute to and from the workplace, with the exception of arrival and departure times for the work day. If OSHA requires the reporting of injuries that occur during the employee's commute, the number of injuries reported would increase dramatically.

The National Federation of Independent Business (Ex. 15: 304) stated that the proposed exception would be consistent with workers' compensation rules.

OSHA has concluded that a limited exception for cases occurring on parking lots is appropriate but that the broader exception proposed is not. The final rule thus provides an exception for motor vehicle injury cases occurring when employees are commuting to and from work. As discussed in the preamble that accompanies the definition of ''establishment'' (see Subpart G of the final rule), OSHA has decided to rely on activity-based rather than location-based exemptions in the final rule. The parking lot exception in the final rule applies to cases in which employees are injured in motor vehicle accidents commuting to and from work and running personal errands (and thus such cases are not recordable), but does not apply to cases in which an employee slips in the parking lot or is injured in a motor vehicle accident while conducting company business (and thus such cases are recordable). This exception is codified at paragraph 1904.5(b)(2)(vii) of the final rule.

Proposed Exception B–8. Never Engaged in an Activity That Could Have Placed Stress On the Affected Body Part. This proposed exception would have allowed employers not to record cases if no aspect of the worker's job placed stress on the affected body part or exposed the worker to any chemical or physical agent at work that could be associated with the observed injury or illness. This proposed exception received support from a number of employers (see, *e.g.*, Exs. 15: 176, 185, 231, 273, 301, 341, 359, 406). For example, the National Wholesale Druggists' Association stated that ''Such injuries or illnesses are obviously not caused by any work-related activities and should therefore be excluded from any reporting and recording requirements' (Ex. 15: 185).

Deleting the word ''never'' from the proposed exception was also supported by many respondents (see, *e.g.*, Exs. 15: 146, 279, 304, 335, 374, 392, 395, 430, 431, 442). Representative of the latter group is the following comment by the BF Goodrich Company (Ex. 15: 146):

> The use of the term ''never'' in this exemption requires too harsh a test for case evaluation. A back injury should not be recordable because the employee lifted a box 10 years previous to the injury. A more reasonable evaluation criteria meeting the same intent could be stated as below: The injury or illness is not work-related if it cannot be associated with the employee's duties or exposures at work.

Taking an opposing view to the proposed exception were the AFL-CIO (Ex. 15: 418), the United Steelworkers of America (Ex. 15: 429), and the United Brotherhood of Carpenters Health and Safety Fund of North America (Ex. 15: 350). The AFL-CIO stated that:

> We believe when evaluating injuries this approach could logically work in most cases, but in cases of chemical exposures and musculoskeletal disorders this logic does not hold merit. If the Agency attempts to apply this approach to the aforementioned types of cases, the employer will have to become an

epidemiologist, ergonomist or toxicologist to determine if these cases meet the recordability criteria set forth in this proposal . . . . We encourage the Agency to omit this provision from the final standard. Because of the increasing numbers of workers being medically diagnosed for multiple chemical sensitivity and the exposures some workers receive without any knowledge until years after the incident, the Agency must carefully think about the inclusion of this provision to the final standard.

Similarly, the Carpenters Fund (UBC H&SF) argued that:

[T]his [exception] would exclude those cases where symptoms arise at work, but are caused by accidents or exposures away from work. The UBC H&SF agrees with the theory of this provision, but emphasizes that the task placed on employers to determine causation by exposures away from work would in many cases be impossible. Also the apportionment of causation is not discussed in this analysis and would allow some to record cases .01 percent caused by work and others to not record cases 99 percent caused by work. For the foregoing reasons, that this requirement is unworkable, we urge it be dropped from the final rule.

Based on a review of the record on this issue, OSHA has decided not to include this proposed exception in the final rule. On reflection, the proposed language is confusing and would be difficult to apply. The underlying concept, to the extent it has merit, is better covered in the exemption paragraph 1904.5(b)(2)(ii). As discussed in preceding sections of this summary and explanation for section 1904.5, there are sound legal and policy justifications for defining work-relationship broadly to include injuries and illnesses that result from events or exposures in the work environment. The proposed exception would effectively ''swallow'' the geographic presumption theory of causation underpinning the rule by shifting the focus of enquiry in every case to the employee's specific job duties. As OSHA has noted, the geographic presumption includes some cases in which the illness or injury cannot be directly linked to the stresses imposed by job duties. For example, if an employee trips while walking on a level factory floor and breaks his arm, the injury should be recordable. The comments supporting the proposed exemption do not, in OSHA's view, provide a basis for excluding these types of cases from recording on the Log.

Proposed Exception B–9. Voluntary Community Activities Away From The Employer's Establishment. This proposed exemption drew two comments supporting it as written (Exs. 15: 78, 304), and several other participants recommended that it be expanded to exclude injuries and illnesses that arise from voluntary community activities wherever they occur (see, *e.g.*, Exs. 15: 146, 184, 272, 303, 359). Typical of these comments is one from U.S. West (Ex. 15: 184), which stated that ''[e]mphasis should be on the activity that occurred, not the location of the activity.''

The United Brotherhood of Carpenters, Health & Safety Fund of North America (Ex. 15: 350) agreed with the proposed exception, except for cases where the employee is present as a condition of employment or in the employer's interest. It commented:

[A]t the surface this exception seems to make perfect sense. However, real employment relationships and real employer-community relationships do not fit such clean characterizations. Many times employees are forced to become ''team players'' and volunteer for unpaid off-establishment activities. Many employers engage in community ''good will'' generating activities by having their employees volunteer. For the above reasons we urge that cases occurring away from the employer's establishment be considered work-related if the employee is engaged in any activity in the interest of the employer or is there as a condition of employment.

OSHA has decided not to include this proposed exception in the final rule because the final rule's overall definition of work-environment addresses this situation in a simple and straightforward way. If the employee is taking part in the activity and is either working or present as a condition of employment, he or she is in the work environment and any injury or illness that arises is presumed to be work-related and must then be evaluated for its recordability under the general recording criteria. Thus, if the employee is engaged in an activity at a location away from the establishment, any injury or illness occurring during that activity is considered work-related if the worker is present as a condition of employment (for example, the worker is assigned to represent the company at a local charity event). For those situations where the employee is engaged in volunteer work away from the establishment and is not working or present as a condition of employment, the case is not considered work-related under the general definition of work-relationship. There is thus no need for a special exception.

Proposed Exception B–10. The Case Results Solely From Normal Body Movements, not Job-Related Motions or Contribution from the Work Environment. This proposed exception generated some support (see, *e.g.*, Exs. 15: 107, 147, 173, 185, 341, 348, 373, 392) but also caused much confusion about the meaning of the phrases ''normal body movement'' and ''job-related'' (see, *e.g.*, Exs. 15: 80, 83, 89, 98, 146, 176, 225, 226, 231, 239, 273, 301, 304, 313, 352, 353, 355, 359, 406, 424). The following comment by the American Gas Association (Ex. 15: 225) is representative of those in this group:

'[N]ormal body movements' needs clarification since OSHA has not set forth any reasons for excluding it. OSHA's language states that there is an exclusion ''* * * provided that activity does not involve a job related motion and the work environment does not contribute to the injury or illness''. OSHA goes on to elaborate that illnesses or injuries should not be recorded if they are not related to an identifiable work activity. However, OSHA also states the exclusion would not apply if it involved repetitive motion or if the work environment either caused or contributed to the injury or illness. This language is ambiguous and redundant. Repetitive motion injury/illness conditions should be treated in the same way as any other condition. There should be a work-related exclusion if the work environment did not cause or contribute to the injury/illness.

LeRoy E. Euvard, Jr., Safety and Environmental Staff (Ex. 15: 80) added:

[T]he definition of work-related resulting from normal body movements is too broad. The definition excludes walking, talking, etc. 'provided the activity does not involve a job-related motion.' Does that mean that if an employee is walking to the rest room and becomes ill, the illness is not work-related, but, if he/she is walking from the rest room back to his/her work station, it is work-related? If the employee is engaged in social talk, the illness is not work-related, but, if he/she is engaged in a conversation regarding some aspect of work, the illness is work-related?

Other commenters objected to the concept of excluding cases resulting from normal body movements from the Log (Ex. 56X, pp. 51, 52; Ex. 15: 418). Walter Jones of the International Brotherhood of Teamsters used the following example:

We do take opposition to some of the exceptions. For cases that result in normal body movement, I'd like to just bring another example up. We have a member who after spending most of his morning sorting about 700 different boxes, on break in a normal, unencumbered motion, dropped his pencil and picked it up, had a back spasm and his back went out. And I know that according to the way the standard is written, or the regulation is written, that this can be attributed to work activity. But the reason we bring it up is we need to be careful in trying to be that exact because an employer will take an uninformed employee and may take liberties (Ex. 56X, pp. 51, 52).

OSHA has decided not to include a recordkeeping exception for injuries or illnesses associated with normal body movements in the final rule. The

proposed provision was intended to exclude the recording of cases that happened to occur in the work environment without any real work contribution. However, the comments on this issue have convinced OSHA that the proposed provision is unnecessary, would be unworkable, and would result in incomplete and inconsistent data. The case cited by the Teamsters is but one example of a legitimate work-related injury that could go unrecorded if OSHA were to adopt this provision in the final rule. Further, the final rule already makes clear that injuries and illnesses that result solely from non-work causes are not considered work-related and therefore are excluded from the Log, and establishes the requirements employers must follow to determine work-relationship for an injury or illness when it is unclear whether the precipitating event occurred in the workplace or elsewhere (see paragraph 1904.5(b)(3)). According to the requirements in that section, the employer must evaluate the employee's work duties and the work environment to decide whether it is more likely than not that events or exposures in the work environment either caused or contributed to the condition or significantly aggravated a pre-existing condition. If so, the case is work-related.

Additional Exemptions Suggested by Commenters but Not Adopted

In addition to commenting on the eleven proposed exceptions, interested parties suggested adding some exceptions to the final rule. This section contains a discussion of those additional exemptions suggested by commenters but not adopted in the final rule.

Acts of God: The International Dairy Foods Association (IDFA) suggested that OSHA exclude any injury or illness that was ''the result of an ''Act of God,'' such as, but not limited to, an earthquake or a tornado'' (Ex. 15: 203). OSHA has not adopted such an exception because doing so would not be in keeping with the geographic presumption underpinning this final rule, and would exclude cases that are in fact work-related. For example, if a worker was injured in a flood while at work, the case would be work-related, even though the flood could be considered an act of God. Accordingly, if workplace injuries and illnesses result from these events, they must be entered into the records (for a more detailed discussion of this point, see the Legal Authority section, above).

Phobias: The American Crystal Sugar Company (Ex. 15: 363) suggested that OSHA add an exception from recording for cases involving phobias:

> I would also like to suggest exempting an employee's loss of consciousness based on a fear-based phobia, i.e., fainting at the sight of blood. Occasionally an OSHA regulation may require blood tests, such as checking lead levels in blood. There are a few employees that will lose consciousness at the sight of a needle. These phobias are not limited to medical procedures, but may include spiders, snakes, etc. In several of our factories, the occupational health nurse will administer tetanus boosters as a service to our employees. Employees that have a phobia about injections can (and do) lose consciousness, which now makes what was intended as a service an OSHA recordable accident.

OSHA has not included an exception from recording in the final recordkeeping regulation for phobias or any other type of mental illness. The scenario described by the American Crystal Sugar Company, which involved fainting from fear of an injection offered as a service to employees, might be considered non-work-related under the exception codified at paragraph 1904.5(b)(2)(iii), Voluntary participation in a medical activity. OSHA also believes that it would be unreasonable to omit a case of loss of consciousness resulting from the administration of a blood test for lead exposure at work. These tests are necessitated by the employee's exposure to lead at work and are required by OSHA's lead standard (29 CFR 1910.1025). The other scenarios presented by these commenters, involving spiders, snakes, etc., would also be work-related under the geographic presumption.

Illegal activities and horseplay: Several commenters suggested an exception for an employee engaging in illegal activities, horseplay, or failing to follow established work rules or procedures (see, *e.g.*, Exs. 15: 49, 69, 117, 151, 152, 179, 180, 203, 368, 393). The comment of the American Network of Community Options and Resources (ANCOR) (Ex. 15: 393) is representative of those on this issue:

> Employees who fail to follow employer training and best practices or violate established policy present a threat not only to other employees and consumers/customers, but also to employers held responsible for the consequences of their actions. For example, ANCOR does not believe that employers should have to use these recording and reporting procedures when illnesses and injuries are a result of an employee engaged in illegal activities or fails/violates established procedures.

OSHA has not adopted any of these recommended exceptions in the final recordkeeping rule because excluding these injuries and illnesses would be inconsistent with OSHA's longstanding reliance on the geographic presumption to establish work-relatedness. Furthermore, the Agency believes that many of the working conditions pointed to in these comments involve occupational factors, such the effectiveness of disciplinary policies and supervision. Thus, recording such incidents may serve to alert both the employer and employees to workplace safety and health issues.

Non-occupational degenerative conditions: Two commenters also asked OSHA to include in the final rule a recording exception for non-occupational degenerative conditions (Exs. 15: 176, 248) such as high blood pressure, arthritis, coronary artery disease, heart attacks, and cancer that can develop regardless of workplace exposure. OSHA has not added such an exception to the rule, but the Agency believes that the fact that the rule expects employers confronted with such cases to make a determination about the extent to which, if at all, work contributed to the observed condition will provide direction about how to determine the work-relatedness of such cases. For example, if work contributes to the illness in some way, then it is work-related and must be evaluated for its recordability. On the other hand, if the case is wholly caused by non-work factors, then it is not work-related and will not be recorded in the OSHA records.

Determining Whether the Precipitating Event or Exposure Occurred in the Work Environment or Elsewhere

Paragraph 1904.5(b)(3) of the final rule provides guidance on applying the geographic presumption when it is not clear whether the event or exposure that precipitated the injury or illness occurred in the work environment or elsewhere. If an employee reports pain and swelling in a joint but cannot say whether the symptoms first arose during work or during recreational activities at home, it may be difficult for the employer to decide whether the case is work-related. The same problem arises when an employee reports symptoms of a contagious disease that affects the public at large, such as a staphylococcus infection (''staph'' infection) or Lyme disease, and the workplace is only one possible source of the infection. In these situations, the employer must examine the employee's work duties and environment to determine whether it is more likely than not that one or more events or exposures at work caused or contributed to the condition. If the employer determines that it is unlikely that the precipitating event or exposure

occurred in the work environment, the employer would not record the case. In the staph infection example given above, the employer would consider the case work-related, for example, if another employee with whom the newly infected employee had contact at work had been out with a staph infection. In the Lyme disease example, the employer would determine the case to be work-related if, for example, the employee was a groundskeeper with regular exposure to outdoor conditions likely to result in contact with deer ticks.

In applying paragraph 1904.5(b)(3), the question employers must answer is whether the precipitating event or exposure occurred in the work environment. If an event, such as a fall, an awkward motion or lift, an assault, or an instance of horseplay, occurs at work, the geographic presumption applies and the case is work-related unless it otherwise falls within an exception. Thus, if an employee trips while walking across a level factory floor, the resulting injury is considered work-related under the geographic presumption because the precipitating event—the tripping accident—occurred in the workplace. The case is work-related even if the employer cannot determine why the employee tripped, or whether any particular workplace hazard caused the accident to occur. However, if the employee reports an injury at work but cannot say whether it resulted from an event that occurred at work or at home, as in the example of the swollen joint, the employer might determine that the case is not work-related because the employee's work duties were unlikely to have caused, contributed to, or significantly aggravated such an injury.

Significant Workplace Aggravation of a Pre-existing Condition

In paragraph 1904.5(b)(4), the final rule makes an important change to the former rule's position on the extent of the workplace aggravation of a preexisting injury or illness that must occur before the case is considered work-related. In the past, any amount of aggravation of such an injury or illness was considered sufficient for this purpose. The final rule, however, requires that the amount of aggravation of the injury or illness that work contributes must be ''significant,'' *i.e.*, non-minor, before work-relatedness is established. The preexisting injury or illness must be one caused entirely by non-occupational factors.

A number of commenters on OSHA's proposed rule raised the issue of recording injuries that were incurred off the job and then were aggravated on the job (see, *e.g.*, Exs. 15: 60, 80, 95, 107, 176, 201, 204, 213, 281, 308, 313, 338, 368, 375, 395, 396, 406, 424, 427, 428, 441). The National Roofing Contractors Association (NRCA) commented that ''[t]his definition [includes] aggravating a pre-existing condition. While NRCA believes that the exemptions provided [in the proposed rule] are a step in the right direction, this provision could require that an employer record an injury that originally occurred outside the employer's workplace. The motion or activity that aggravated the injury may not represent any substantial hazard, yet would still be recorded'' (Ex. 15: 441). The United Parcel Service (Ex. 15: 424) objected to the inclusion of the concept of aggravation in the definition of work-relatedness:

> [a]nother flaw in the proposal arises from its proposed recording requirement in the case of ''aggravation'' of prior conditions. As drafted, the rule would require reporting as an occupational injury or illness a musculoskeletal condition arising away from work which becomes aggravated by performing job duties (i.e., the job increases discomfort), when accompanied by swelling or inflammation. Thus, an employee who hurts his wrist playing tennis on the weekend and who returns to his word processing job Monday would have a reportable MSD under the rule. With such criteria for recordation, reported occupational injuries and illnesses would skyrocket, and yet most often these reports would reflect conditions arising away from work.

The Food Distributors International (Ex. 15: 368) recommended:

> [i]t is very important that injuries that are not truly work-related not be the subject of mandatory recording. For example, if an employee were injured off the job and came to work to ''try it out'' (i.e., to see if he or she was capable of performing the normal job functions), resulting pain might be seen as ''aggravation'' and become recordable on that basis. The true source of injury, however, would be outside the workplace, and recording would produce an artificially inflated rate of injuries and illnesses, and a profile that was inaccurate.

Several commenters were concerned about the aggravation of preexisting injuries in the context of recurrences or new cases (see, *e.g.*, Exs. 15: 210, 204, 338) . For example, Caterpillar Inc. (Ex. 15: 201) stated that:

> [b]ack injuries, repetitive motion injuries, and other chronic conditions which have degenerative or aging causal factors often recur without a new work accident and further without a new work accident capable of causing the underlying condition. Even if a new work accident occurs, the accident should be serious enough to cause the underlying condition before the new case presumption is applicable. The effect of this would be to eliminate minor aggravation of preexisting conditions from consideration as new injuries.

LeRoy E. Euvard, Jr., of the Safety and Environmental Staff Company (Ex. 15: 80), suggested that:

> [a]ggravation of a pre-existing condition should not be recordable if normal body movements or events cause the aggravation. For example, a smoker with asthma or other obstructive airway disease may experience shortness of breath while climbing a flight of stairs. A person with degenerative disk disease may experience pain while lifting a normal bag of groceries. If performing similar activities at work likewise aggravates the condition, it should not be recordable.

As discussed above, OSHA agrees that non-work-related injuries and illnesses should not be recorded on the OSHA Log. To ensure that non-work-related cases are not entered on the Log, paragraph 1904.5(b)(2)(ii) requires employers to consider as non-work-related any injury or illness that ''involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.''

The Agency also believes that preexisting injury or illness cases that have been aggravated by events or exposures in the work environment represent cases that should be recorded on the Log, because work has clearly worsened the injury or illness. OSHA is concerned, however, that there are some cases where work-related aggravation affects the preexisting case only in a minor way, i.e., in a way that does not appreciably worsen the preexisting condition, alter its nature, change the extent of the medical treatment, trigger lost time, or require job transfer. Accordingly, the final rule requires that workplace events or exposures must ''significantly'' aggravate a pre-existing injury or illness case before the case is presumed to be work-related. Paragraph 1904.5(a) states that an injury or illness is considered work-related if ''an event or exposure in the work environment either caused or contributed to the resulting condition or *significantly aggravated* a pre-existing injury or illness.''

Paragraph 1904.5(b)(4) of the final rule defines aggravation as significant if the contribution of the aggravation at work is such that it results in tangible consequences that go beyond those that the worker would have experienced as a result of the preexisting injury or illness alone, absent the aggravating effects of the workplace. Under the final rule, a preexisting injury or illness will be considered to have been significantly aggravated, for the purposes of OSHA injury and illness recordkeeping, when an event or exposure in the work

environment results in: (i) Death, providing that the preexisting injury or illness would likely not have resulted in death but for the occupational event or exposure; (ii) Loss of consciousness, providing that the preexisting injury or illness would likely not have resulted in loss of consciousness but for the occupational event or exposure; (iii) A day or days away from work or of restricted work, or a job transfer that otherwise would not have occurred but for the occupational event or exposure; or (iv) Medical treatment where no medical treatment was needed for the injury or illness before the workplace event or exposure, or a change in the course of medical treatment that was being provided before the workplace event or exposure. OSHA's decision not to require the recording of cases involving only minor aggravation of preexisting conditions is consistent with the Agency's efforts in this rulemaking to require the recording only of non-minor injuries and illnesses; for example, the final rule also no longer requires employers to record minor illnesses on the Log.

Preexisting Conditions

Paragraph 1904.5(b)(5) stipulates that pre-existing conditions, for recordkeeping purposes, are conditions that resulted solely from a non-work-related event or exposure that occurs outside the employer's work environment. Pre-existing conditions also include any injury or illness that the employee experienced while working for another employer.

Off Premises Determinations

Employees may be injured or become ill as a result of events or exposures away from the employer's establishment. In these cases, OSHA proposed to consider the case work-related only if the employee was engaged in a work activity or was present as a condition of employment (61 FR 4063). In the final rule, (paragraph 1904.5(b)(1)) the same concept is carried forward in the definition of the work environment, which defines the environment as including the establishment and any other location where one or more employees are working or are present as a condition of their employment.

Thus, when employees are working or conducting other tasks in the interest of their employer but at a location away from the employer's establishment, the work-relatedness of an injury or illness that arises is subject to the same decision making process that would occur if the case had occurred at the establishment itself. The case is work-related if one or more events or exposures in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing condition, as stated in paragraph 1904.5(a). In addition, the exceptions for determining work relationship at paragraph 1904.5(b)(2) and the requirements at paragraph 1904.5(b)(3) apply equally to cases that occur at or away from the establishment.

As an example, the work-environment presumption clearly applies to the case of a delivery driver who experiences an injury to his or her back while loading boxes and transporting them into a building. The worker is engaged in a work activity and the injury resulted from an event—loading/unloading—occurring in the work environment. Similarly, if an employee is injured in an automobile accident while running errands for the company or traveling to make a speech on behalf of the company, the employee is present at the scene as a condition of employment, and any resulting injury would be work-related.

Employees on Travel Status

The final rule continues (at § 1904.5(b)(6)) OSHA's longstanding practice of treating injuries and illnesses that occur to an employee on travel status as work-related if, at the time of the injury or illness, the employee was engaged in work activities ''in the interest of the employer.'' Examples of such activities include travel to and from customer contacts, conducting job tasks, and entertaining or being entertained if the activity is conducted at the direction of the employer.

The final rule contains three exceptions for travel-status situations. The rule describes situations in which injuries or illnesses sustained by traveling employees are not considered work-related for OSHA recordkeeping purposes and therefore do not have to be recorded on the OSHA 300 Log. First, when a traveling employee checks into a hotel, motel, or other temporary residence, he or she is considered to have established a ''home away from home.'' At this time, the status of the employee is the same as that of an employee working at an establishment who leaves work and is essentially ''at home''. Injuries and illnesses that occur at home are generally not considered work related. However, just as an employer may sometimes be required to record an injury or illness occurring to an employee working in his or her home, the employer is required to record an injury or illness occurring to an employee who is working in his or her hotel room (see the discussion of working at home, below).

Second, if an employee has established a ''home away from home'' and is reporting to a fixed worksite each day, the employer does not consider injuries or illnesses work-related if they occur while the employee is commuting between the temporary residence and the job location. These cases are parallel to those involving employees commuting to and from work when they are at their home location, and do not have to be recorded, just as injuries and illnesses that occur during normal commuting are not required to be recorded.

Third, the employer is not required to consider an injury or illness to be work-related if it occurs while the employee is on a personal detour from the route of business travel. This exception allows the employer to exclude injuries and illnesses that occur when the worker has taken a side trip for personal reasons while on a business trip, such as a vacation or sight-seeing excursion, to visit relatives, or for some other personal purpose.

The final rule's travel-related provisions (at paragraph 1904.5(b)(6)) are essentially identical to those proposed (63 FR 4063), with only minor editorial changes, and are also parallel to those for determining the work-relationship of traveling employees under the former recordkeeping system (Ex. 2, pp. 36, 37). OSHA received various comments and suggestions about how best to determine work relationship for traveling employees. A few commenters endorsed OSHA's proposed approach (see, *e.g.*, Exs. 15: 199, 396, 406). Other commenters believe, however, that employer control of, or the authority to control, the work environment should be determinative because activities outside the employer's control fall outside the scope of the employer's safety and health program (see, *e.g.*, Exs. 15: 335, 396, 409, 424). The comments of the Dow Chemical Company (Ex. 15: 335) are typical of these views:

> [t]ravel on public carriers such as commercial airlines, trains, and taxi services or pre-existing conditions that are aggravated during normal unencumbered body motions, or injuries that occur off-the-job but do not impair someone until they arrive at work are all beyond the control of the employer and the scope of any safety and health program. The commercial plane that crashes while the employee was flying on company business or the taxi accident while the employee was trying to get to the airport to fly on company business are events which, while tragic, are beyond the scope of an employer's control and beyond the reasonable reach of that employer's safety and health program.

However, as discussed in the Legal Authority section and the introduction to the work-relationship section of the preamble, OSHA has decided not to limit the recording of occupational injuries and illnesses to those cases that are preventable, fall within the employer's control, or are covered by the employer's safety and health program. The issue is not whether the conditions could have, or should have, been prevented or whether they were controllable, but simply whether they are occupational, i.e., are related to work. This is true regardless of whether the employee is injured while on travel or while present at the employer's workplace. An employee who is injured in an automobile accident or killed in an airline crash while traveling for the company has clearly experienced a work-related injury that is rightfully included in the OSHA injury and illness records and the Nation's occupational injury and illness statistics. As the American Industrial Hygiene Association (Ex. 15: 153) remarked:

> The workforce is increasingly made up of service sector jobs. Computers, materials movement, travel, violence are all emerging and increasing sources of occupational injury and illness. Many of these newer trends in cases may not involve lost workdays, but are recordable and significant to the workforce none the less. Many of the clean, non-manufacturing employers who were traditionally exempt from recordkeeping have risk in these and other emerging areas about which OSHA should be collecting data.

Two commenters specifically objected to the inclusion of cases involving client entertainment (Ex. 15: 409, 424). The American Association of Automobile Manufacturers (AAMA) remarked:

> AAMA agrees with OSHA that injuries/illnesses to employees during travel status are work-related and recordable. However, AAMA takes strong exception to the inclusion of 'entertaining or being entertained for the purpose of transacting, discussing, or promoting business.' We find the notion of recording an illness for an employee, while he/she was engaged in a business related dinner, and subsequently suffering acute onset of diarrhea leading to hospitalization for gastroenteritis, to be inappropriate. OSHA needs to remove this obligation from the final rule. (Ex. 15: 409)

OSHA does not agree with this comment, because the Agency believes that employees who are engaged in management, sales, customer service and similar jobs must often entertain clients, and that doing so is a business activity that requires the employee to work at the direction of the employer while conducting such tasks. If the employee is injured or becomes ill while engaged in such work, the injury or illness is work-related and should be recorded if it meets one or more of the other criteria (death, medical treatment, etc.). The gastroenteritis example provided by the AAMA is one type of injury or illness that may occur in this situation, but employees are also injured in accidents while transporting clients to business-related events at the direction of the employer or by other events or exposures arising in the work environment.

On the other hand, not all injuries and illnesses sustained in the course of business-related entertainment are reportable. To be recordable, the entertainment activity must be one that the employee engages in at the direction of the employer. Business-related entertainment activities that are undertaken voluntarily by an employee in the exercise of his or her discretion are not covered by the rule. For example, if an employee attending a professional conference at the direction of the employer goes out for an evening of entertainment with friends, some of whom happen to be clients or customers, any injury or illness resulting from the entertainment activities would not be recordable. In this case, the employee was socializing after work, not entertaining at the direction of the employer. Similarly, the fact that an employee joins a private club or organization, perhaps to ''network'' or make business contacts, does not make any injury that occurs there work-related.

Two commenters recommended that OSHA eliminate the exceptions for determining work-relationship while employees are on travel and simply require all injuries and illnesses occurring while an employee is on travel status to be considered work-related (Exs. 15: 350, 418). For example, the AFL–CIO (Ex. 15: 418) suggested:

> We would also strongly encourage the Agency to re-evaluate [proposed] Appendix A Section C ''Travel Status''. The AFL–CIO believes that employees in ''travel status'' (*e.g.*, traveling on company business) should be considered engaged in work-related activities during ALL of their time spent on the trip. This includes all travel, job tasks, entertaining and other activities occurring during ''travel status.''

OSHA believes that expanding the concept of work-related travel to include all of the time the worker spends on a trip would be inconsistent with the tests of work-relationship governing the recording of other injuries and illnesses and would therefore skew the statistics and confuse employers. As the Dow Chemical Company (Ex. 15: 335) stated:

> While the employee is traveling for the benefit of the company, it cannot be said that 100% of their time is engaged in work-related activities. Employees engage in personal and social activities while traveling on company business that is not for the direct benefit of the company nor a condition of employment and which cannot be impacted by an employer's safety or health program. Often there is ''free time'' while traveling and employees engage in a myriad of activities such as shopping, sightseeing, dining out with friends or family that may be in the area, and the like. These are activities that do not benefit the company and are outside the company's control or reasonable reach of its safety and health programs. These are activities which, if the employee were engaged in them at their normal work location, would not be recordable; but just by the fact that they happen to be traveling for business purposes raises these otherwise non-recordable cases into those subject to the recordkeeping rule.

OSHA agrees with Dow that there are situations where an injury or illness case involving an employee who is on travel status should be excluded from the records. There is no value in recording injuries and illnesses that would not be recorded under non-travel circumstances. For example, there is no value to including in the statistics an injury sustained by an employee who slips and falls in a motel room shower or who is injured in an automobile accident while on personal business, or becomes the victim of random street violence while doing personal shopping on a business trip. OSHA is therefore continuing the Agency's practice of excluding certain cases while employees are in travel status and applying the exceptions to the geographic presumption in the final rule to those occurring while the worker is traveling.

The Department of Energy (Ex. 15: 163) expressed a concern about overseas travel, remarking ''For employees who travel in the U.S., the standard makes sense. For employees who travel out of the country, additional burdens to them are generally incurred. Travelers to tropical locations or other areas with different fauna and microbes may incur diseases that are not indigenous to the U.S.'' In response, OSHA notes that the recordkeeping regulation does not apply to travel outside the United States because the OSH Act applies only to the confines of the United States (29 U.S.C. § 652(4)) and not to foreign operations. Therefore, the OSHA recordkeeping regulation does not apply to non-U.S. operations, and injuries or illnesses that may occur to a worker traveling outside the United States need not be recorded on the OSHA 300 Log.

Working at Home

The final rule also includes provisions at § 1904.5(b)(7) for

determining the work-relatedness of injuries and illnesses that may arise when employees are working at home. When an employee is working on company business in his or her home and reports an injury or illness to his or her employer, and the employee's work activities caused or contributed to the injury or illness, or significantly aggravated a pre-existing injury, the case is considered work-related and must be further evaluated to determine whether it meets the recording criteria. If the injury or illness is related to non-work activities or to the general home environment, the case is not considered work-related.

The final rule includes examples to illustrate how employers are required to record injuries and illnesses occurring at home. If an employee drops a box of work documents and injures his or her foot, the case would be considered work-related. If an employee's fingernail was punctured and became infected by a needle from a sewing machine used to perform garment work at home, the injury would be considered work-related . If an employee was injured because he or she tripped on the family dog while rushing to answer a work phone call, the case would not be considered work-related. If an employee working at home is electrocuted because of faulty home wiring, the injury would not be considered work-related.

This provision is consistent with longstanding Agency practice under the former recordkeeping system. It was also included in the proposed rule (63 FR 4063), which read ''An injury or illness will be considered work-related if it occurs while the employee is performing work for pay or compensation in the home, if the injury or illness is directly related to the performance of work rather than the general home environment or setting.''

A number of commenters supported OSHA's proposed approach to recording the injuries and illnesses of employees who work at home (see, *e.g.*, Exs. 15: 31, 146, 176, 231, 273, 301, 336, 348, 375, 406, 409, 413, 427, 429). The comments of the Council of Community Blood Centers (CCBC) (Ex. 15: 336) are typical of the views of these participants:

> CCBC believes this is a good rule and should stay on the books. Accident or illness should be work-related if it occurs at home and is related to performance of the work, not the general home environment or setting. Workers often are off the premises in a variety of situations, such as travel, providing repair services, or consultation. Just as injuries in these situations are reportable, so should those during work at home, if authorized by the employer.

A large number of commenters objected to the proposed approach, however (see, *e.g.*, Exs. 65, 66, 78, 89, 105, 111, 123, 194, 200, 225, 239, 260, 262, 265, 277, 288, 330, 335, 341, 345, 360, 387, 393, 401, 406, 409, 430, 434, 440). Most of these commenters objected because of the employer's perceived inability to control working conditions in the home environment (see, *e.g.*, Exs. 15: 89, 163, 194, 239, 262, 288, 330, 345, 360). For example, the Fort Howard Corporation commented:

> Fort Howard strongly opposes OSHA's proposal to consider any injuries and illnesses as ''work-related'' if it occurs while the employee is performing work for pay or compensation in the home if the injury or illness is directly related to the performance of the work. Employers have absolutely no control over employees' homes. They cannot oversee employees who are doing the work nor can they effectively monitor the manner the work is conducted or the environment in which it is conducted. OSHA's proposal could place employers in the role of insuring the home as a safe work environment. (Ex. 15: 194)

Again, as discussed above, OSHA is concerned that all non-minor work-related cases be recorded on the Log and become part of the national statistics, both because these injuries and illnesses provide information about the safety and health of the work environment to employers, employees, and safety and health professionals and because collecting them may allow previously obscured safety and health issues to be identified. Injuries and illnesses occurring while the employee is working for pay or compensation at home should be treated like injuries and illnesses sustained by employees while traveling on business. The relevant question is whether or not the injury or illness is work-related, not whether there is some element of employer control. The mere recording of these injuries and illnesses as work-related cases does not place the employer in the role of insuring the safety of the home environment.

The law firm of Leonard, Ralston, Stanton & Remington, Chartered (Ex. 15: 430) raised questions about OSHA's role when employees perform office work activities in a home office:

> The increasing incidence of home work (or ''telecommuting'') raises some interesting issues. For example, does OSHA assume that its right of inspection extends to an employee's private home? If so, has the Agency examined the constitutionality of this position? What control does the Agency assume an employer has over working conditions in a private home? Does the Agency expect the employer to inspect its employees' homes to identify unsafe conditions? Must the employer require an employee to correct unsafe conditions in the home (*e.g.*, frayed carpet which presents a tripping hazard; overloaded electrical wiring or use of extension cords; etc.) as a condition of employment? If so, who must pay the cost of necessary home improvements?

OSHA has recently issued a compliance directive (CPL 2–0.125) containing the Agency's response to many of the questions raised by this commenter. That document clarifies that OSHA will not conduct inspections of home offices and does not hold employers liable for employees' home offices. The compliance directive also notes that employers required by the recordkeeping rule to keep records ''will continue to be responsible for keeping such records, regardless of whether the injuries occur in the factory, in a home office, or elsewhere, as long as they are work-related, and meet the recordability criteria of 29 CFR Part 1904.''

With more employees working at home under various telecommuting and flexible workplace arrangements, OSHA believes that it is important to record injuries and illnesses attributable to work tasks performed at home. If these cases are not recorded, the Nation's injury and illness statistics could be skewed. For example, placing such an exclusion in the final rule would make it difficult to determine if a decline in the overall number or rate of occupational injuries and illnesses is attributable to a trend toward working at home or to a change in the Nation's actual injury and illness experience. Further, excluding these work-related injuries and illnesses from the recordkeeping system could potentially obscure previously unidentified causal connections between events or exposures in the work environment and these incidents. OSHA is unwilling to adopt an exception that would have these potential effects. As the BF Goodrich Company (Ex. 15: 146) said, ''[s]pecific criteria to address employee work-at-home situations is appropriate to assure consistent reporting in our changing work environment.''

Section 1904.6 Determination of New Cases

Employers may occasionally have difficulty in determining whether new signs or symptoms are due to a new event or exposure in the workplace or whether they are the continuation of an existing work-related injury or illness. Most occupational injury and illness cases are fairly discrete events, i.e., events in which an injury or acute illness occurs, is treated, and then resolves completely. For example, a worker may suffer a cut, bruise, or rash from a clearly recognized event in the

workplace, receive treatment, and recover fully within a few weeks. At some future time, the worker may suffer another cut, bruise or rash from another workplace event. In such cases, it is clear that the two injuries or illnesses are unrelated events, and that each represents an injury or illness that must be separately evaluated for its recordability.

However, it is sometimes difficult to determine whether signs or symptoms are due to a new event or exposure, or are a continuance of an injury or illness that has already been recorded. This is an important distinction, because a new injury or illness requires the employer to make a new entry on the OSHA 300 Log, while a continuation of an old recorded case requires, at most, an updating of the original entry. Section 1904.6 of the final rule being published today explains what employers must do to determine whether or not an injury or illness is a new case for recordkeeping purposes.

The basic requirement at § 1904.6(a) states that the employer must consider an injury or illness a new case to be evaluated for recordability if (1) the employee has not previously experienced a recorded injury or illness of the same type that affects the same part of the body, or (2) the employee previously experienced a recorded injury or illness of the same type that affected the same part of the body but had recovered completely (all signs and symptoms of the previous injury or illness had disappeared) and an event or exposure in the work environment caused the injury or illness, or its signs or symptoms, to reappear.

The implementation question at § 1904.6(b)(1) addresses chronic work-related cases that have already been recorded once and distinguishes between those conditions that will progress even in the absence of workplace exposure and those that are triggered by events in the workplace. There are some conditions that will progress even in the absence of further exposure, such as some occupational cancers, advanced asbestosis, tuberculosis disease, advanced byssinosis, advanced silicosis, etc. These conditions are chronic; once the disease is contracted it may never be cured or completely resolved, and therefore the case is never ''closed'' under the OSHA recordkeeping system, even though the signs and symptoms of the condition may alternate between remission and active disease.

However, there are other chronic work-related illness conditions, such as occupational asthma, reactive airways dysfunction syndrome (RADs), and sensitization (contact) dermatitis, that recur if the ill individual is exposed to the agent (or agents, in the case of cross-reactivities or RADs) that triggers the illness again. It is typical, but not always the case, for individuals with these conditions to be symptom-free if exposure to the sensitizing or precipitating agent does not occur.

The final rule provides, at paragraph (b)(1), that the employer is not required to record as a new case a previously recorded case of chronic work-related illness where the signs or symptoms have recurred or continued in the absence of exposure in the workplace. This paragraph recognizes that there are occupational illnesses that may be diagnosed at some stage of the disease and may then progress without regard to workplace events or exposures. Such diseases, in other words, will progress without further workplace exposure to the toxic substance(s) that caused the disease. Examples of such chronic work-related diseases are silicosis, tuberculosis, and asbestosis. With these conditions, the ill worker will show signs (such as a positive TB skin test, a positive chest roentgenogram, etc.) at every medical examination, and may experience symptomatic bouts as the disease progresses.

Paragraph 1904.6(b)(2) recognizes that many chronic occupational illnesses, however, such as occupational asthma, RADs, and contact dermatitis, are triggered by exposures in the workplace. The difference between these conditions and those addressed in paragraph 1904.6(b)(1) is that in these cases exposure triggers the recurrence of symptoms and signs, while in the chronic cases covered in the previous paragraph, the symptoms and signs recur even in the absence of exposure in the workplace. This distinction is consistent with the position taken by OSHA interpretations issued under the former recordkeeping rule (see the *Guidelines* discussion below). The Agency has included provisions related to new cases/continuations of old cases in the final rule to clarify its position and ensure consistent reporting.

Paragraph 1904.6(b)(3) addresses how to record a case for which the employer requests a physician or other licensed health care professional (HCP) to make a new case/continuation of an old case determination. Paragraph (b)(3) makes clear that employers are to follow the guidance provided by the HCP for OSHA recordkeeping purposes. In cases where two or more HCPs make conflicting or differing recommendations, the employer is required to base his or her decision about recordation based on the most authoritative (best documented, best reasoned, or most persuasive) evidence or recommendation.

The final rule's provisions on the recording of new cases are nearly identical to interpretations of new case recordability under the former rule. OSHA has historically recognized that it is generally an easier matter to differentiate between old and new cases that involve injuries than those involving illnesses: the *Guidelines* stated that ''the aggravation of a previous injury almost always results from some new incident involving the employee * * * [w]hen work-related, these new incidents should be recorded as new cases on the OSHA forms, assuming they meet the criteria for recordability * * *'' (Ex. 2, p. 31). However, the *Guidelines* also stated that ''certain illnesses, such as silicosis, may have prolonged effects which recur over time. The recurrence of these symptoms should not be recorded as a new case on the OSHA forms. * * * Some occupational illnesses, such as certain dermatitis or respiratory conditions, may recur as the result of new exposures to sensitizing agents, and should be recorded as new cases.''

OSHA developed and included specific guidance for evaluating when cumulative trauma disorders (CTDs) (ergonomic injuries and illnesses, now known as musculoskeletal disorders, or MSDs) should be recorded as new cases in the *Ergonomics Program Management Guidelines For Meatpacking Plants* (Ex. 11, p. 15) which were published in 1990. These *Guidelines* provided:

> If and when an employee who has experienced a recordable CTD becomes symptom free (including both subjective symptoms and physical findings), any recurrence of symptoms establishes a new case. Furthermore, if the worker fails to return for medical care within 30 days, the case is presumed to be resolved. Any visit to a health care provider for similar complaints after the 30-day interval ''implies reinjury or reexposure to a workplace hazard and would represent a new case.''

Thus, the former rule had different ''new case'' criteria for musculoskeletal disorders than for other injuries and illnesses. (For the final rule's recording criteria for musculoskeletal disorders, see Section 1904.12.)

OSHA's recordkeeping NPRM proposed a single approach to the identification of new cases for all injuries and illnesses, including musculoskeletal disorders. The proposal would have required the recurrence of a pre-existing injury or illness to be considered a new case to evaluate for recordability if (1) it resulted from a

new work event or exposure, or (2) 45 days had elapsed since medical treatment, work restriction, or days away from work had ceased, and the last sign or symptom had been experienced. The proposed approach would, in effect, have extended the recurrence criteria for musculoskeletal disorders to all injury and illness cases, but would have increased the no-medical-intervention interval from 30 to 45 days. A recurrence of a previous work-related injury or illness would have been presumed, under the proposed approach, to be a new case if (1) it resulted from a new work accident or exposure, or (2) 45 days had elapsed since medical treatment had been administered or restricted work activity or days away had occurred and since the last sign or symptom had been experienced. This proposed presumption would have been rebuttable if there was medical evidence indicating that the prior case had not been resolved. In the proposal, OSHA also asked for input on the following questions related to new case recording:

> OSHA solicits comment on the appropriateness of the 45-day interval. Is 45 days too short or long of a period? If so, should the period be 30 days? 60 days? 90 days? or some other time period? Should different conditions (*e.g.* back cases, asthma cases etc.) have different time intervals for evaluating new cases?
>
> OSHA is also seeking input for an improved way to evaluate new cases. Should a new category of cases be created to capture information on recurring injuries and illnesses? One option is to add an additional ''check box'' column to the proposed OSHA Form 300 for identifying those cases that are recurrences of previously recorded injuries and illnesses. This would allow employers, employees and OSHA inspectors to differentiate between one time cases and those that are recurrent, chronic conditions. This approach may help to remove some of the stigma of recording these types of disorders and lead to more complete records. OSHA solicits input on this approach. Will a recurrence column reduce the stigma of recording these types of cases? Should recurrences be included in the annual summaries? Should a time limit be used to limit the use of a recurrence column?

In response to the views and evidence presented by commenters to the record, OSHA has decided not to adopt the proposed approach to the recording of new/recurring cases in the final rule. Commenters expressed a wide variety of views about the recording of recurring injury and illness cases. Some commenters favored the proposed approach as drafted. Others, however, objected to it on many grounds: (1) the time limit should be longer or shorter than the 45 days proposed; (2) the proposed approach would result in under- or overreporting; (3) it would conflict with workers' compensation requirements; (4) it was too restrictive (5) it would encourage excessive use of the health care system; and (6) it should be replaced by a physician or other licensed health care professional's opinion.

A number of commenters supported OSHA's proposed approach (see, *e.g.*, Exs. 15: 27, 65, 70, 151, 152, 154, 179, 180, 181, 185, 186, 188, 214, 331, 332, 336, 359, 387, 396, 424, 428). Representative of these comments was one from The Fertilizer Institute (TFI):

> TFI agrees with OSHA's proposed 45 day criterion for the recording of new cases. Concerning OSHA's solicitation of comments on whether different conditions should have different evaluation periods, TFI encourages OSHA to adopt a single time period for all conditions. Different evaluation periods for different conditions will lead to complexity and confusion without any resulting benefit to recordkeeping (Ex. 15: 154).

Other commenters supported the concept of using a time limit for determining new cases, but thought the number of days should be higher (see, *e.g.*, Exs. 15: 45, 49, 61, 82, 89, 131, 147, 184, 235, 331, 389). Some commenters generally opposed the time limit concept but made recommendations for longer time periods if OSHA decided in the final rule to adopt a time limit (see, *e.g.*, Exs. 15: 38, 79, 89, 111, 136, 137, 141, 194, 224, 246, 266, 278, 288, 299, 313, 335, 352, 353, 430). The longer intervals suggested by commenters included 60 days (see, *e.g.*, Exs. 15: 82, 389); 90 days (see, *e.g.*, Exs. 15: 38, 49, 79, 147, 184, 246, 299, 313, 331, 335, 352, 353, 430); 120 days (Ex. 15: 194); 180 days (see, *e.g.*, Exs. 15: 61, 111, 136, 137, 141, 224, 266, 278, 288); one year (Ex. 15: 131); and five years (Ex. 15: 89).

A large number of commenters opposed the proposed approach for identifying new cases that would then be tested for their recordability (see, *e.g.*, Exs. 15: 33, 38, 39, 41, 78, 79, 89, 95, 102, 107, 111, 119, 127, 133, 136, 137, 141, 153, 171, 176, 194, 199, 203, 224, 225, 231, 246, 266, 273, 278, 281, 288, 289, 299, 301, 305, 307, 308, 313, 335, 337, 341, 346, 348, 352, 353, 375, 395, 405, 410, 413, 424, 425, 428, 430, 440). Some commenters argued that the proposed 45-day interval was arbitrary (see, *e.g.*, Exs. 15: 119, 203, 289, 313, 352, 353, 395), that it conflicted with workers' compensation new case determinations (see, *e.g.*, Exs. 15: 38, 119, 136, 137, 141, 224, 266, 278), that the approach would not work in the case of chronic injury (see, *e.g.*, Exs. 33; 15: 176, 199, 231, 273, 299, 301, 305, 308, 337, 346, 348, 375), or that the proposed 45-day rule would result in over-reporting of occupational injuries and illnesses (see, *e.g.*, Exs. 15: 119, 127, 136, 137, 141, 171, 199, 224, 266, 278, 305, 337, 424, 425). The comments of the NYNEX Corporation (Ex. 15: 199) illustrate the general concerns of these commenters:

> We do not agree, however, with the second criterion of a symptom free 45 day period following medical treatment, restriction, or days away from work. This criterion fails to take into account the persistent nature of many chronic or recurring conditions, i.e., back strains, musculoskeletal disorders, where the symptoms may disappear for a period of time, but the underlying conditions are still present. If adopted, this criterion could cause injury and illness data to be artificially inflated with the onset of ''new'' cases, which in fact are recurrences of existing conditions. This in turn could lead to false epidemics and a diversion of resources from more legitimate workplace concerns.

On the other hand, William K. Principe of Constangy, Brooks & Smith, LLC (Ex. 15: 428) was concerned that the proposed method would result in fewer recordable cases:

> Since many employees will report that they continued to experience symptoms or that they continue to have good days and bad days, the new rule will result in many fewer recordable CTD [cumulative trauma disorder] cases. In fact, at some hand-intensive manual operations, the number of CTD cases should be drastically reduced under the proposal that 45 days must elapse since the last symptom. There is something fundamentally wrong with a recordkeeping system that one year shows a high incidence of CTDs and the next shows a dramatic decline, when the underlying conditions remain virtually identical.

United Parcel Service (Ex. 15: 424) stated that there should be no time limit to determining whether or not a case is a recurrence:

> In UPS's experience, however, it is a simple process to determine, by medical referral or by examining prior medical history, whether a condition is a recurrence. This has long been the practice, and indeed the [proposal] contemplates it will remain the practice through the first 44 days. It does not become any more complex on the 45th, 50th, or 100th day; and if in an individual employer's judgment it does, then the employer may of course report the condition as a new injury.

Three commenters disapproved of OSHA's approach because it would have been applicable to all recurrences and they believe that each case must be evaluated on its own merits (Exs. 15: 78, 184, 203). The International Dairy Foods Association (IDFA) described this concern succinctly: ''Each injury has its own resolution based on the injury, illness, degree, and numerous other factors that are characteristic of the

individual. As such, it is impossible for OSHA or anyone else to set a valid number of days even if the resolution period is set on the basis of the type of illness/injury'' (Ex. 15: 203).

In addition, the proposed 45-day approach was interpreted differently by different commenters. For example, David E. Jones of the law firm Ogletree, Deakins, Nash, Smoak & Stewart (ODNSS) suggested:

> The words ''either'' and ''or'' * * * should be deleted because an aggravation of the previously recorded injury or illness brought about within the 45-day period would require the entry of a new case at that time, thus negating the 45-day rule, leading to the adverse result that the 45-day rule otherwise would rectify. Accordingly, ODNSS recommends * * * ''A recurrence of a previous work-related injury or illness is a new case when it (1) results from a new work event or exposure *and* (2) 45 days have elapsed since medical treatment, restricted work activity, or days away from work (as applicable) were discontinued and the employee has been symptom-free (including both subjective symptoms and physical findings) (emphasis added) (Ex. 15: 406).

In the final rule, OSHA has decided against the proposed approach of determining case resolution based on a certain number of days during which the injured or ill employee did not lose time, receive treatment, have signs or symptoms, or be restricted to light duty. OSHA agrees with those commenters who argued that the proposed approach was too prescriptive and did not allow for the variations that naturally exist from one injury and illness case to the next. Further, the record contains no convincing evidence to support a set number of days as appropriate. OSHA thus agrees with those commenters who pointed out that adoption of a fixed time interval would result in the overrecording of some injury and illness cases and the underrecording of others, and thus would impair the quality of the records.

Further, OSHA did not intend to create an ''injury free'' time zone during which an injury or illness would not be considered a new case, regardless of cause, as ODNSS suggested. Instead, OSHA proposed that a case be considered a new case if *either* condition applied: the case resulted from a new event or exposure *or* 45 days had elapsed without signs, symptoms, or medical treatment, restricted work, or days away from work. There are clearly cases where an event or exposure in the workplace would be cause for recording a new case. A new injury may manifest the same signs and symptoms as the previous injury but still be a new injury and not a continuation of the old case if, for example, an employee sustains a fall and fractures his or her wrist, and four months later falls again and fractures the wrist in the same place. This occurrence is not a continuation of the fracture but rather a new injury whose recordability must be evaluated. The final rule's approach to recurrence/new case determinations avoids this and other recording problems because it includes no day count limit and relies on one of the basic principles of the recordkeeping system, i.e., that injuries or illnesses arising from events or exposures in the workplace must be evaluated for recordability.

In response to those commenters who raised issues about inconsistency between the OSHA system and workers' compensation, OSHA notes that there is no reason for the two systems, which serve different purposes (recording injuries and illnesses for national statistical purposes and indemnifying workers for job-related injuries and illnesses) to use the same definitions. Accordingly, the final rule does not rely on workers' compensation determinations to identify injuries or illness cases that are to be considered new cases for recordkeeping purposes.

Another group of commenters argued that the 45-day recording requirement would lead employers to spend money on unnecessary and costly health care (see, *e.g.*, Exs. 15: 136, 137, 141, 224, 266, 278, 305, 346, 348, 375). The views of the American Petroleum Institute (API) are representative: ''OSHA's proposal would also add substantially to employers' costs since it could require employees to make frequent trips to a health care professional, even if symptom free, just to avoid being recorded repeatedly on the OSHA log as new cases'' (Ex. 15: 375). Union Carbide Corporation (Ex. 15: 396) also remarked on the proposed approach's potential incentive for medical follow-up, but viewed such an incentive as a positive phenomenon, stating ''One benefit [of the proposed approach] is that it encourages medical follow-up for the employee.'' Although the proposed approach would not have ''required'' an employer to send a worker to a physician or other licensed health care professional, and OSHA is not persuaded that employers would choose to spend money in this way merely to avoid recording an occasional case as a new case, elimination of any set day-count interval from the final rule will also have made the concerns of these commenters moot.

OSHA also received a number of suggestions about the role of physicians and other licensed health care professionals (HCP) in new case determinations. A number of commenters recommended that the decision to record should be based solely on the opinions of a physician or other licensed health care professional (see, *e.g.*, Exs. 33: 15: 39, 95, 107, 119, 127, 133, 225, 289, 332, 335, 341, 387, 424, 440). The National Grain and Feed Association, the National Oilseed Processors Association, and the Grain Elevator and Processing Society (Ex. 15: 119) commented as a group and recommended that ''[r]elying on a physician's opinion rather than an arbitrary timeframe would simplify recordkeeping and help ensure that the records are consistent with existing and accepted workers' compensation plans.''

Other commenters recommended that, if OSHA adopted a day count time limit, the rule should specifically allow a physician's opinion to be used to refute a new case determination (see, *e.g.*, Exs. 15: 65, 181, 184, 203). Several others simply asked OSHA to provide more guidance on what type of medical evidence could be used in new case determinations (see, *e.g.*, Exs. 15: 176, 231, 273, 301, 430). The National Wholesale Druggists' Association (NWDA) suggested that ''OSHA should also include a provision that the employee obtain written approval from a doctor that the employee's condition has been resolved before going back to work. Determining the end of treatment should be left in the hands of a medical professional and OSHA should require some type of documentation to that effect'' (Ex. 15: 185).

OSHA has not included any provisions in the final rule that require an employer to rely on a physician or other licensed health care professional or that tell a physician or other licensed health care professional how to treat an injured or ill worker, or when to begin or end such treatment. In the final rule OSHA does require the employer to follow any determination a physician or other licensed health care professional has made about the status of a new case. That is, if such a professional has determined that a case is a new case, the employer must record it as such. If the professional determines that the case is a recurrence, rather than a new case, the employer is not to record it a second time. In addition, the rule does not require the employee, or the employer, to obtain permission from the physician or other licensed health care professional before the employee can return to work. OSHA believes that the employer is capable of, and often in the best position to, make return-to-work decisions.

Southern California Edison (Ex. 15: 111) expressed concern that imposing a day limit would not take differences

between types of injuries and illnesses into account, stating ''A recurrence of a previous work-related injury or illness should only be considered a new case when the injury or illness has completely healed. Severe muscle and nerve damage can take many weeks or months to properly heal.'' The final rule takes such differences into account, as follows. If the previous injury or illness has not healed (signs and symptoms have not resolved), then the case cannot be considered resolved. The employer may make this determination or may rely on the recommendation of a physician or other licensed health care professional when doing so. Clearly, if the injured or ill employee is still exhibiting signs or symptoms of the previous injury or illness, the malady has not healed, and a new case does not have to be recorded. Similarly, if work activities aggravate a previously recorded case, there is no need to consider recording it again (although there may be a need to update the case information if the aggravation causes a more severe outcome than the original case, such as days away from work).

The Quaker Oats Company (Ex. 15: 289) suggested that employers should be permitted by the rule to decide whether a given case was a new case or not, without requirements in the rule:

> The 45 day interval on determining if a case is a new one or should be counted under a previous injury should be left to the discretion of the employer. They have the most intimate knowledge of the work environment, medical treatment of the affected employee and the status of their work-related injury or illness. I will agree that it is a difficult matter to decide and to assure consistency throughout industry * * * I believe that any number of days would simply be an arbitrary attempt at quantifying something that is best left to the medical judgment of a healthcare professional.

Under the OSHA recordkeeping system, the employer is always the responsible party when it comes to making the determination of the recordability of a given case. However, if OSHA did not establish consistent new case determination criteria, a substantial amount of variability would be introduced into the system, which would undermine the Agency's goals of improving the accuracy and consistency of the Nation's occupational injury and illness data. Accordingly, OSHA has not adopted this suggested approach in the final rule.

A number of commenters argued that the occurrence of a new event, exposure, or incident should be required to trigger the recording of a new case (see, *e.g.*, Exs. 33, 15: 102, 171, 176, 231, 273, 301, 307, 308, 405, 410, 413, 425). Representative of these comments was one from the Voluntary Protection Programs Participants' Association (VPPPA), which recommended that OSHA ''adopt a definition for new case that requires the occurrence of a new work-related event to trigger a new case. In the absence of this, the case would be considered recurring'' (Ex. 15: 425). OSHA agrees with the VPPPA that if no further event or exposure occurs in the workplace to aggravate a previous injury or illness, a new case need not be recorded. However, if events or exposures at work cause the same symptoms or signs to recur, the final rule requires employers to evaluate the injury or illness to see if it is a new case and is thus recordable.

The OSHA statistical system is designed to measure the incidence, rather than prevalence, of occupational injury and illness. Incidence measures capture the number of new occupational injuries and illnesses occurring in a given year, while prevalence measures capture the number of such cases existing in a given year (prevalence measures thus capture cases without regard to the year in which they onset). Prevalence measures would therefore capture all injuries and illnesses that occurred in a given year as well as those unresolved injuries and illnesses that persist from previous years. The difference is illustrated by the following cases: (1) A worker experiences a cut that requires sutures and heals completely before the year ends; this injury would be captured both by an incidence or prevalence measure for that particular year. (2) Another worker retired last year but continues to receive medical treatment for a work-related respiratory illness that was first recognized two years ago. This case would be captured in the year of onset and each year thereafter until it resolves if a prevalence measure is used, but would be counted only once (in the year of onset) if an incidence measure is used.

Because the OSHA system is intended to measure the incidence of occupational injury and illness, each individual injury or illness should be recorded only once in the system. However, an employee can experience the same type of injury or illness more than once. For example, if a worker cuts a finger on a machine in March, and is then unfortunate enough to cut the same finger again in October, this worker has clearly experienced two separate occupational injuries, each of which must be evaluated for its recordability. In other cases, this evaluation is not as simple. For example, a worker who performs forceful manual handling injures his or her back in 1998, resulting in days away from work, and the case is entered into the records. In 1999 this worker has another episode of severe work-related back pain and must once again take time off for treatment and recuperation. The question is whether or not the new symptoms, back pain, are continuing symptoms of the old injury, or whether they represent a new injury that should be evaluated for its recordability as a new case. The answer in this case lies in an analysis of whether or not the injured or ill worker has recovered fully between episodes, and whether or not the back pain is the result of a second event or exposure in the workplace, *e.g.*, continued manual handling. If the worker has not fully recovered and no new event or exposure has occurred in the workplace, the case is considered a continuation of the previous injury or illness and is not recordable.

One reason for the confusion that is apparent in some of the comments on the proposal's approach to the recording of recurrences may be the custom that developed over the years of referring to recordable recurrences of work-related injuries and illnesses as ''new cases.'' See for example, 61 FR 4037/1 (''employers may be dealing with a re-injury or recurrence of a previous case and must decide whether the recurrence is a ''new case'' or a continuation of the original case.'') The term ''new case'' tends to suggest to some that the case is totally original, when in fact new cases for OSHA recordkeeping purposes include three categories of cases; (1) totally new cases where the employee has never suffered similar signs or symptoms while in the employ of that employer, (2) cases where the employee has a preexisting condition that is significantly aggravated by activities at work and the significant aggravation reaches the level requiring recordation, and (3) previously recorded conditions that have healed (all symptoms and signs have resolved) and then have subsequently been triggered by events or exposures at work.

Under the former rule and the final rule, both new injuries and recurrences must be evaluated for their work-relatedness and then for whether they meet one or more of the recording criteria; when these criteria are met, the case must be recorded. If the case is a continuation of a previously recorded case but does not meet the ''new case'' criteria, the employer may have to update the OSHA 300 Log entry if the original case continues to progress, i.e., if the status of the case worsens. For example, consider a case where an

employee has injured his or her back lifting a heavy object, the injury resulted in medical treatment, and the case was recorded as a case without restricted work or days away. If the injury does not heal and the employer subsequently decides to assign the worker to restricted work activity, the employer is required by the final rule to change the case classification and to track the number of days of restricted work. If the case is a previous work-related injury that did not meet the recording criteria and thus was not recorded, future developments in the case may require it to be recorded. For example, an employee may suffer an ankle sprain tripping on a step. The employee is sent to a health care professional, who does not recommend medical treatment or restrictions, so the case is not recorded at that time. If the injury does not heal, however, and a subsequent visit to a physician results in medical treatment, the case must then be recorded.

OSHA and employers and employees need data on recurring cases because recurrence is an important indicator of severity over the long term. Just as the number of days away is a useful indicator of health and safety risk at a particular establishment, so is the total number of injury and illness events and of exposures resulting in health consequences that occur in an establishment or industry. Further, any realistic assessment of occupational safety and health conditions should reflect the fact that some but not all injuries and illnesses have long-term consequences. In other words, a safety and health analysis should give less weight to an injury or illness that has a clear and relatively quick recovery without impairment of any kind and an injury or illness that is chronic in nature or one that involves recurring episodes that are retriggered by workplace events or exposures.

Ignoring the fact that an occupational injury or illness is a recurrence occasioned by an event or exposure in the workplace would result in an underestimate of the true extent of occupational injury and illness and deprive employers, employees, and safety and health professionals of essential information of use in illness prevention. The other extreme, requiring employers to record on-going signs or symptoms repeatedly, even in the absence of an event or exposure in the workplace, would result in overstating the extent of illness. In terms of the recordkeeping system, deciding how most appropriately to handle new cases requires a balanced approach that minimizes both overrecording and underrecording. OSHA has dealt with this problem in the final rule by carefully defining the circumstances under which a chronic and previously recorded injury or illness must be considered closed and defining the circumstances under which a recurrence is to be considered a new case and then evaluated to determine whether it meets one or more of the recordability criteria.

OSHA's proposal to apply a single criterion to the determination of the recordability of all recurrences of previously recorded injuries and illnesses received support from several commenters (see, *e.g.*, Exs. 15: 31, 61, 70, 154, 203, 396). The final rule uses one set of criteria for determining whether any injury or illness, including a musculoskeletal disorder, is to be treated as a new case or as the continuation of an ''old'' injury or illness. First, if the employee has never had a recorded injury or illness of the same type and affecting the same part of the body, the case is automatically considered a new case and must be evaluated for recordability. This provision will handle the vast majority of injury and illness cases, which are new cases rather than recurrences or case continuations. Second, if the employee has previously had a recorded injury or illness of the same type and affecting the same body part, but the employee has completely recovered from the previous injury or illness, and a new workplace event or exposure causes the injury or illness (or its signs or symptoms) to reappear, the case is a recurrence that the employer must evaluate for recordability.

The implementation section of § 1904.6 describes these requirements and includes explanations applying to two special circumstances. In the first case, paragraph 1904.6(b)(1) the employee has experienced a chronic injury or illness of a type that will progress regardless of further workplace exposure. Cases to which this provision applies are serious, chronic illness conditions such as occupational cancer, asbestosis, silicosis, chronic beryllium disease, etc. These occupational conditions generally continue to progress even though the worker is removed from further exposure. These conditions may change over time and be associated with recurrences of symptoms, or remissions, but the signs (*e.g.*, positive chest roentgenogram, positive blood test) generally continue to be present throughout the course of the disease.

The second kind of case, addressed in paragraph 1904.6(b)(b)(2), requires employers to record chronic illness cases that recur as a result of exposures in the workplace. These conditions might include episodes of occupational asthma, reactive airways dysfunction syndrome (RADS), or contact allergic dermatitis, for example.

Paragraph 1904.6(b)(3) recognizes the role of physicians and other licensed health care professionals that the employer may choose to rely on when tracking a ''new case'' or making a continuation of an old case determination. If a physician or other licensed health care professional determines that an injury or illness has been resolved, the employer must consider the case to be resolved and record as a new case any episode that causes the signs and symptoms to recur as a result of exposure in the workplace. On the other hand, if the HCP consulted by the employer determines that the case is a chronic illness of the type addressed by paragraph 1904.6(b)(1), the employer would not record the case again. In either case, the employer would evaluate it for work-relatedness and then determine whether the original entry requires updating or the case meets the recording criteria. Paragraph (b)(3) also recognizes that the employer may ask for input from more than one HCP, or the employer and employee may each do so, and in such cases, the rule requires the employer to rely on the one judged by the employer to be most authoritative.

Adding a Recurrence Column to the OSHA 300 Log

In the proposal, OSHA asked commenters whether the Log should include a column with a check-box that could be marked if a case was a recurrence of a pre-existing condition (61 FR 4037). Some commenters supported the proposed approach (see, *e.g.*, Exs. 15: 27, 39, 61, 65, 89, 154, 186, 214, 235, 277, 299, 305, 332, 336). For example, the National Association of Manufacturers (NAM) suggested that, in lieu of adopting a 45-day time limit, OSHA should add a column to the Log: ''If the Agency believes there is a need to track the number of recurring cases, we believe the better approach would be to add a column to the log which would permit the original entry for each injury or illness to be updated in the event of a recurrence'' (Ex. 15: 305). The American Association of Homes and Services for the Aging (AAHSA) agreed:

> [t]here should be a column on the injury and illness log for employers to check for reoccurring injuries. This addition would help the employer to identify possible patterns or problems associated with a specific job and find solutions. Recommendation: Add a column to the injury and illness log allowing the employer

to check when an employee is having a repetitive injury or illness (Ex. 15: 214).

Other commenters did not support the proposal's approach to tracking recurrences (see, *e.g.*, Exs. 15: 70, 78, 136, 137, 141, 151, 152, 179, 180, 194, 224, 266, 278). The comments of Kathy Lehrman, RN, Occupational Health Nurse (Ex. 15: 136) are representative of these comments:

> The addition of a column to record recurrent conditions would not reduce the stigma and would lead to increased health care provider visits to avoid having an ongoing case labeled as a new case. * * * I do not see the value of including a new category of case designation. This runs counter to the simplification objective.

After a review of the comments on this issue, OSHA has decided not to include such a check-box on the Log. The final rule adds several columns to the OSHA 300 form to collect data on the number of restricted workdays and on various types of occupational injuries and illnesses. The addition of these columns, and the decision to provide more space on the Log to add information on the case, has used up the available space on the form. Requiring employers to record recurrences would also be burdensome and make the rule more complex. Further, OSHA did not propose such a requirement, and this issue raises questions not adequately aired in the record. For example, if an employee has recurring episodes of low back pain, should the employer be required to record each day the employee experiences such pain as a recurring injury? OSHA is also unsure how recurrence data should be captured and used in the Nation's injury and illness statistics. For example, would a separate data set on recurrences, similar to data on injuries and illnesses, be produced by the BLS?

OSHA has therefore decided that it is not appropriate to add a column to the Log to capture data on recurring injuries and illnesses. However, OSHA recognizes that data on injury and illness recurrence may be useful to employers and employees at individual worksites and encourages employers who wish to collect this additional information to do so; however, the final rule does not require employers to provide recurrence data on the Log.

Section 1904.7 General Recording Criteria

Section 1904.7 contains the general recording criteria for recording work-related injuries and illnesses. This section describes the recording of cases that meet one or more of the following six criteria: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or diagnosis as a significant injury or illness by a physician or other licensed health care professional.

Paragraph 1904.7(a)

Paragraph 1904.7(a) describes the basic requirement for recording an injury or illness in the OSHA recordkeeping system. It states that employers must record any work-related injury or illness that meets one or more of the final rule's general recording criteria. There are six such criteria: death, days away from work, days on restricted work or on job transfer, medical treatment beyond first aid, loss of consciousness, or diagnosis by a physician or other licensed heath care professional as a significant injury or illness. Although most cases are recorded because they meet one of these criteria, some cases may meet more than one criterion as the case continues. For example, an injured worker may initially be sent home to recuperate (making the case recordable as a ''days away'' case) and then subsequently return to work on a restricted (''light duty'') basis (meeting a second criterion, that for restricted work). (see the discussion in Section 1904.29 for information on how to record such cases.)

Paragraph 1904.7(b)

Paragraph 1904.7(b) tells employers how to record cases meeting each of the six general recording criteria and states how each case is to be entered on the OSHA 300 Log. Paragraph 1904.7(b)(1) provides a simple decision table listing the six general recording criteria and the paragraph number of each in the final rule. It is included to aid employers and recordkeepers in recording these cases.

1904.7(b)(2) Death

Paragraph 1904.7(b)(2) requires the employer to record an injury or illness that results in death by entering a check mark on the OSHA 300 Log in the space for fatal cases. This paragraph also directs employers to report work-related fatalities to OSHA within 8 hours and cross references the fatality and catastrophe reporting requirements in § 1904.39 of the final rule, Reporting fatalities and multiple hospitalizations to OSHA.

Paragraph 1904.7(b)(2) implements the OSH Act's requirements to record all cases resulting in work-related deaths. There were no comments opposing the recording of cases resulting in death. However, there were several comments questioning the determination of work-relatedness for certain fatality cases and the appropriateness of reporting certain kinds of fatalities to OSHA. These comments are addressed in the sections of this preamble devoted to work-relationship and fatality reporting (sections 1904.5 and 1904.39, respectively).

Paragraph 1904.7(b)(3) Days Away From Work

Paragraph 1904.7(b)(3) contains the requirements for recording work-related injuries and illnesses that result in days away from work and for counting the total number of days away associated with a given case. Paragraph 1904.7(b)(3) requires the employer to record an injury or illness that involves one or more days away from work by placing a check mark on the OSHA 300 Log in the space reserved for day(s) away cases and entering the number of calendar days away from work in the column reserved for that purpose. This paragraph also states that, if the employee is away from work for an extended time, the employer must update the day count when the actual number of days away becomes known. This requirement continues the day counting requirements of the former rule and revises the days away requirements in response to comments in the record.

Paragraphs 1904.7(b)(3)(i) through (vi) implement the basic requirements. Paragraph 1904.7(b)(3)(i) states that the employer is not to count the day of the injury or illness as a day away, but is to begin counting days away on the following day. Thus, even though an injury or illness may result in some loss of time on the day of the injurious event or exposure because, for example, the employee seeks treatment or is sent home, the case is not considered a days-away-from-work case unless the employee does not work on at least one subsequent day because of the injury or illness. The employer is to begin counting days away on the day following the injury or onset of illness. This policy is a continuation of OSHA's practice under the former rule, which also excluded the day of injury or onset of illness from the day counts.

Paragraphs 1904.7(b)(3)(ii) and (iii) direct employers how to record days-away cases when a physician or other licensed health care professional (HCP) recommends that the injured or ill worker stay at home or that he or she return to work but the employee chooses not to do so. As these paragraphs make clear, OSHA requires employers to follow the physician's or HCP's recommendation when recording the case. Further, whether the employee works or not is in the control of the

employer, not the employee. That is, if an HCP recommends that the employee remain away from work for one or more days, the employer is required to record the injury or illness as a case involving days away from work and to keep track of the days; the employee's wishes in this case are not relevant, since it is the employer who controls the conditions of work. Similarly, if the HCP tells the employee that he or she can return to work, the employer is required by the rule to stop counting the days away from work, even if the employee chooses not to return to work. These policies are a continuation of OSHA's previous policy of requiring employees to follow the recommendations of health care professionals when recording cases in the OSHA system. OSHA is aware that there may be situations where the employer obtains an opinion from a physician or other health care professional and a subsequent HCP's opinion differs from the first. (The subsequent opinion could be that of an HCP retained by the employer or the employee.) In this case, the employer is the ultimate recordkeeping decision-maker and must resolve the differences in opinion; he or she may turn to a third HCP for this purpose, or may make the recordability decision himself or herself.

Paragraph 1904.7(b)(3)(iv) specifies how the employer is to account for weekends, holidays, and other days during which the employee was unable to work because of a work-related injury or illness during a period in which the employee was not scheduled to work. The rule requires the employer to count the number of calendar days the employee was unable to work because of the work-related injury or illness, regardless of whether or not the employee would have been scheduled to work on those calendar days. This provision will ensure that a measure of the length of disability is available, regardless of the employee's work schedule. This requirement is a change from the former policy, which focused on scheduled workdays missed due to injury or illness and excluded from the days away count any normal days off, holidays, and other days the employee would not have worked.

Paragraph 1904.7(b)(3)(v) tells the employer how to count days away for a case where the employee is injured or becomes ill on the last day of work before some scheduled time off, such as on the Friday before the weekend or the day before a scheduled vacation, and returns to work on the next day that he or she was scheduled to work. In this situation, the employer must decide if the worker would have been able to work on the days when he or she was not at work. In other words, the employer is not required to count as days away any of the days on which the employee would have been able to work but did not because the facility was closed, the employee was not scheduled to work, or for other reasons unrelated to the injury or illness. However, if the employer determines that the employee's injury or illness would have kept the employee from being able to work for part or all of time the employee was away, those days must be counted toward the days away total.

Paragraph 1904.7(b)(3)(vi) allows the employer to stop counting the days away from work when the injury or illness has resulted in 180 calendar days away from work. When the injury or illness results in an absence of more than 180 days, the employer may enter 180 (or 180+) on the Log. This is a new provision of the final rule; it is included because OSHA believes that the ''180'' notation indicates a case of exceptional severity and that counting days away beyond that point would provide little if any additional information.

Paragraph 1904.7(b)(3)(vii) specifies that employers whose employees are away from work because of a work-related injury or illness and who then decide to leave the company's employ or to retire must determine whether the employee is leaving or retiring because of the injury or illness and record the case accordingly. If the employee's decision to leave or retire is a result of the injury or illness, this paragraph requires the employer to estimate and record the number of calendar days away or on restricted work/job transfer the worker would have experienced if he or she had remained on the employer's payroll. This provision also states that, if the employee's decision was unrelated to the injury or illness, the employer is not required to continue to count and record days away or on restricted work/job transfer.

Paragraph 1904.(b)(3)(viii) directs employers how to handle a case that carries over from one year to the next. Some cases occur in one calendar year and then result in days away from work in the next year. For example, a worker may be injured on December 20th and be away from work until January 10th. The final rule directs the employer only to record this type of case once, in the year that it occurred. If the employee is still away from work when the annual summary is prepared (before February 1), the employer must either count the number of days the employee was away or estimate the total days away that are expected to occur, use this estimate to calculate the total days away during the year for the annual summary, and then update the Log entry later when the actual number of days is known or the case reaches the 180-day cap allowed in § 1904.7(b)(3)(v).

Comments on the Recording of Days Away From Work

OSHA received a large number of comments on how days away should be counted. The issues addressed by commenters included (1) whether to count scheduled workdays or calendar days, (2) whether the day counts should be ''capped,'' and, if so, at what level, (3) how to count days away or restricted when employees are terminated or become permanently disabled, and (4) how to handle cases that continue to have days away/restricted from one year to the next.

Scheduled or calendar work days. OSHA proposed to count scheduled workdays, consistent with its long-standing policy of excluding normal days off such as weekends, holidays, days the facility is closed, and prescheduled vacation days (61 FR 4033). The proposal asked the public for input on which counting method—calendar days or scheduled work days—would be better, stating that ''OSHA is considering a modification to the concept of days away from work to include days the employee would normally not have worked (*e.g.* weekends, holidays, etc.). OSHA believes this change to calendar days would greatly simplify the method of counting days away by eliminating the need to keep track of, and subtract out, scheduled days off from the total time between the employee's first day away and the time the employee was able to return to full duty'' (61 FR 4033). The proposal also discussed the potential benefits and pitfalls of counting calendar days:

> Another potential benefit of changing to calendar days would be that the day count would more accurately reflect the severity of the injury or illness. The day count would capture all the days the employee would not have been able to work at full capacity regardless of work schedules. For example, if an employee, who normally does not work weekends, is injured on a Friday and is unable to work until the following Tuesday, the ''days away from work'' would be three (3), using calendar days, rather than one (1) day, using work days. If the same injury occurred on a Monday, the day count would be three (3) using either calendar or workdays. Changing the day count to calendar days would eliminate discrepancies based upon work schedules. Thus, the day counts would be easier to calculate and potentially more meaningful.
>
> One of the potential problems with this change would be that economic information on lost work time as a measure of the impact of job related injuries and illnesses on work

life would no longer be available. Employers could, however, estimate work time lost by applying a work day/calendar day factor to the recorded day counts. OSHA solicits comment on the idea of counting calendar days rather than work days, in particular, what potential do these methods have for overstating (i.e. counting calendar days) or understating (i.e. counting work days) the severity of injuries and illnesses? (61 FR 4034)

OSHA received a large number of comments on the calendar day/scheduled day issue. Many commenters suggested that OSHA track days away from work using its former method of counting scheduled workdays (see, *e.g.*, Exs. 21; 30; 37; 15: 10, 16, 30, 42, 44, 48, 61, 66, 69, 78, 79, 89, 100, 107, 108, 119, 121, 122, 127, 130, 133, 146, 151, 152, 154, 159, 163, 170, 172, 179, 180, 200, 203, 204, 213, 214, 219, 226, 246, 260, 262, 265, 281, 287, 297, 299, 300, 304, 305, 307, 308, 341, 346, 356, 363, 364, 368, 373, 378, 384, 385, 387, 389, 390, 397, 401, 404, 410, 413, 414, 424, 426, 427, 431, 440, 443). Many commenters also suggested that OSHA use calendar days instead of scheduled workdays to track days away from work (see, *e.g.*, Exs. 19; 44; 15: 26, 27, 31, 34, 44, 71, 75, 82, 105, 111, 119, 127, 136, 137, 138, 141, 153, 181, 182, 188, 198, 205, 218, 224, 233, 242, 263, 266, 269, 270, 271, 278, 310, 316, 326, 337, 345, 347, 350, 359, 369, 377, 391, 396, 405, 407, 409, 415, 418, 423, 425, 428, 429, 434, 438). The arguments of each group fall loosely into two categories: which counting method provides the most meaningful data and which method is least burdensome.

Arguing against counting calendar days, a number of commenters stated that calendar days would overstate lost workdays and artificially inflate or distort severity rates (see, *e.g.*, Exs. 15: 10, 16, 42, 44, 69, 108, 119, 127, 130, 133, 146, 159, 163, 170, 195, 203, 213, 219, 281, 287, 297, 300, 304, 305, 307, 341, 356, 364, 373, 385, 389, 390, 397, 404, 410, 414, 424, 426, 431, 440, 443). Some commenters also argued that the information would be ''false and misleading'' (see, *e.g.*, Exs. 15: 287, 443), ''would not indicate true severity'' (Ex. 15: 108), or would make it difficult to compare data from the old rule with data kept under the new rules (see, *e.g.*, Exs. 37; 15: 44, 61, 130, 146, 226, 281, 297, 299, 300, 304, 341, 378, 384, 385, 397, 404, 426, 440). Typical of these views was the one expressed by the American Trucking Associations (Ex. 15: 397), which stated that:

> This provision serves no useful purpose. Its proponents exaggerate the difficulty in computing days away from work under the current regulation. Instead, it will only serve the purpose of artificially increasing incidence and severity rates which would falsely designate a given worksite as unsafe or delineate it as a high hazard workplace. This false delineation of high hazardousness would also result in the workplace being unfairly targeted by OSHA for enforcement activities. In addition, this change would make it difficult, if not impossible, for employers to compare previous lost work day incidence rates with current rates. Such trend data is invaluable to employers in tracking progress made in eliminating workplace injuries and illnesses.

Other commenters, however, argued that calendar days would be a better statistical measure (see, *e.g.*, Exs. 15: 71, 75, 347, 425, 434, 438). For example, the American Waterways Shipyard Conference (Ex. 15: 75) stated:

> AWSC would also urge that ''days away from work'' be counted by calendar days rather than work days. This would ease the burden on establishments in their recordkeeping and would also make the data more useful. For example, an employee injured on Friday who does not return to work until Tuesday is currently counted as one-day off the job. If ''days away from work'' are calculated by calendar days, then this same injury would be counted as three days. The three day injury ruling is a more accurate indicator of the seriousness of the injury.

The United Auto Workers (UAW) argued that: ''Calendar days are a much better measure of severity or disability than actual days which are adjusted for work schedule, vacations, layoffs and other extraneous disruptions. Frankly, counting actual days is a waste of effort, subject to manipulation and serves no public health purpose. It is relic and should be eliminated. The only reason some employers might wish to retain this measure is because they can generate a lower number'' (Ex. 15: 438).

Other commenters were concerned that the change to counting calendar days would have an unfair effect on firms that rely more heavily on part-time workers, use alternative schedules, and/or use planned plant shutdowns (see, *e.g.*, Exs. 15: 42, 96, 121, 159, 163, 213, 219, 200, 262, 281, 299). For example, Dayton Hudson Corporation (Ex. 15: 121) stated that:

> DHC questions the concept of counting calendar days versus the proposed scheduled work days in documenting days away from work. Both methods have their value and also potential problems. The calendar method would make it much easier for a company to record the severity of an accident. However, this method would have a significant effect on an industry such as retailing, since the majority of our work force is part-time. If OSHA decides to go with the calendar method, there needs to be clearly defined examples referenced in the standard dealing with part-time workers.

Northrop Grumman Corporation (Ex. 15: 42) asserted that: ''[c]ounting calendar days for days away from work would have an adverse impact on those companies, such as aerospace companies, which routinely have shut downs for one or more weeks at a time. Employees injured on the day prior to shut down would have to be recorded as being injured, off work, for the entire time of the shut down.'' The Texas Chemical Council (Ex. 15: 159) expressed concern about the impact the change to calendar days might have on day counts involving alternative schedules:

> We believe the value of the reduced burden is not worth the skewed data that may result. OSHA's proposal may yield accurate data and better reflect severity when applied to work schedules following an 8 hour day, Monday through Friday. However, many industries utilize a 12 hour shift that provides periods of time off longer than the normal two day weekends. The proposed method of counting days could, for example, turn an injury requiring two days recuperation time into a case requiring four or more days to be counted. This would skew severity analysis utilizing days off data.

However, the Eli Lilly Company (Ex. 15: 434) argued that calendar days would help equalize day counts: ''[a] calendar day count would ensure employer consistency and comparability even when employers have unique and variable shift works.''

Other commenters argued that scheduled workdays are a better measurement because they measure economic impact and lost productivity (see, *e.g.*, Exs. 15: 154, 172, 203, 204, 226, 262, 304, 341, 356, 364, 367, 397). The Fertilizer Institute (Ex. 15: 154) argued that: ''Although such a change might simplify the counting of days, it will make comparisons difficult for companies, trade and professional associations, and government agencies that are trying to measure the severity of injuries and illnesses in terms of productivity. In addition to the health and safety of its employees, industry is primarily concerned with the cost of work-related injuries and illnesses, as they relate to lost productivity. Thus, the basis of the lost work day, not the lost calendar day, is the most appropriate measurement to use.'' The Society of the Plastics Industry, Inc. (Ex. 15: 364) urged OSHA to retain the scheduled days system because of its usefulness in measuring the economic impact of job-related accidents and the incentive such information provides for prevention efforts.

In addition to arguments about the preferred way of counting days away, commenters discussed the issues of

simplification and the burden of counting days away from work with both methods. A number of commenters supported using calendar days because doing so would simplify the process and reduce burden (see, *e.g.*, Exs. 15: 71, 75, 82, 136, 137, 141, 224, 242, 263, 266, 269, 270, 278, 347, 377, 415, 418, 423, 434). Two commenters made the point that using calendar days would make it easier to use computer software to calculate days away from work (Exs. 15: 347, 423). Representative of the comments supporting the use of calendar days to reduce the recording burden was the view of the Ford Motor Company (Ex. 15: 347):

> The single most significant change that could be made to simplify and reduce the burden of the current recordkeeping system would be a change to a calendar count for days away from work. This would eliminate the need to keep track of and subtract out any scheduled days off from the time of the employee's first day away until the time the employee was able to return to work. Of additional importance, a calendar count approach would provide a more accurate reflection of the severity of injuries and illnesses.
>
> Currently, tracking days away from work is a particular problem in that many individuals no longer work a traditional eight hours a day, Monday through Friday. Some individuals work four days a week, ten hours a day, others work every Saturday and/or Sunday, and some individuals have their scheduled days off during the week. Different employees in the same establishment commonly have different work schedules. Different departments are commonly on ''down time'' while the rest of the establishment may be in full operation. A calendar count will simplify the calculation of days away from work for alternative work schedules.
>
> In comparison to the current system, a calendar count will provide meaningful, consistent, and useful data, as well as provide an accurate reflection of severity. The calendar day count will also enhance the ability to develop software to standardize the recordkeeping process.
>
> In addition, the change to a calendar day count would enable Ford Motor Company to free up highly trained personnel for more productive and effective pursuits rather than tracking lost workdays under the current system. The cost of these resources to track lost workdays cases exceeds one million dollars per year.

Even some of the commenters who argued against OSHA's adoption of a calendar day approach in the final rule acknowledged that counting calendar days would be simpler but emphasized that this added simplicity and reduction in burden would not offset the deleterious effect of this change on the data (see, *e.g.*, Exs. 15: 44, 61, 69, 121, 154, 159, 170, 195). The Institute for Interconnecting and Packaging Electronic Circuits (IPC) said that: ''According to IPC member companies, the potential simplification gains that may be achieved by this proposal would not outweigh the gross overreporting and, therefore, inaccurate data that would result'' (Ex. 15: 69).

Other commenters arguing against calendar days stated that counting scheduled workdays is not difficult or onerous (see, *e.g.*, Exs. 15: 107, 146, 387), that counting calendar days would not simplify the counting of lost workdays (see, *e.g.*, Exs. 15: 16, 119, 146, 281, 299, 304, 308, 341, 364, 367, 424), that counting calendar days would add to the administrative burden (see, *e.g.*, Exs. 15: 42, 146, 304, 308, 341, 364, 367, 431), that counting calendar days would add confusion (see, *e.g.*, Exs. 15: 204, 431), or that employers already report scheduled workdays to workers' compensation and thus this information is already available (see, *e.g.*, Exs. 15: 367, 384). Commenters also cited the need to change computer software systems if a shift to calendar days was made (Ex. 15: 122) and argued that retaining scheduled workdays would require less training than moving to calendar days (see, *e.g.*, Exs. 15: 37, 122, 133, 304, 384). The BF Goodrich Company (Ex. 15: 146) summed up these views:

> BF Goodrich's business systems are set up to count and track work days and work hours. We do not agree with the suggestion of counting calendar days rather than actual work days for Days Away From Work cases. Counting calendar days would improperly inflate the severity incidence rates which are calculated based on actual hours worked and defeat any efforts to perform trend analysis against previous years. Use of calendar days would also require unnecessary analysis of work capability for days that would not be worked anyway. There would be no reduction in burden in a calendar day system and there would be loss of severity trend analysis capability.

A number of commenters pointed to the difficulty of analyzing days away for injuries that occur just before scheduled time off, such as before the weekend (see, *e.g.*, Exs. 15: 16, 42, 44, 69, 79, 130, 179, 226, 281, 299, 341, 363, 389, 414, 424). The Institute for Interconnecting and Packaging Electronic Circuits (IPC) described the following scenario:

> [i]f a worker is injured on Friday, is sent home, and returns to work on Monday, the alternative [calendar day] proposal would require employers to count weekend days in the lost workday count. IPC believes that this alternative proposal would not accurately reflect the severity of the injury since, if the same injury had occurred on a Monday, the worker might have been able to return to work on Tuesday. (Ex. 15: 69)

United Parcel Service (UPS) was concerned about the accuracy of employee reporting of injuries and illnesses under the calendar day system:

> [t]he cessation of the effects of an employee's injury or illness cannot reliably be determined in the case of a worker who ''heals'' on the weekend. Thus, the number of days away from work and their impact on the perception of serious incidents will be substantially inflated. Indeed, it has been UPS's experience that a disproportionate number of injuries are reported on Friday and Monday; inclusion of claimed weekend injury, therefore, would greatly inflate OSHA statistics with factors that honest observers know to be linked, to some degree, with the universal attraction of an extended weekend. The risk, moreover, is not merely inflated numbers, but inflation of the apparent severity of those conditions that are difficult to verify and that are therefore the most likely resort of employees who would misreport a condition for time off (Ex. 15: 424).

Another issue noted by commenters was the difficulty of getting medical attention over the weekend. For example, the American Ambulance Association (Ex. 15: 226) cautioned that ''The common practice of a health care provider is to defer an employee's return to work until after a weekend or holiday, due to limited staff resources for evaluating employee status on those days,'' and the Sandoz Corporation (Ex. 15: 299) noted that ''This change [to calendar days] would lead to overstatement of the severity in cases of part-time employees due to the difficulty of getting return-to-work clearance from medical personnel.''

Two commenters (Exs. 15: 69, 15: 363) objected to counting calendar days based on a belief that counting these days would raise their workers' compensation insurance rates. For example, the Institute for Interconnecting and Packaging Electronic Circuits (IPC) stated that ''Lost time is a major factor in insurance premiums for facilities. As a result, a definition that would over-estimate lost time would significantly raise facility insurance costs'' (Ex. 15: 69).

Patrick R. Tyson, a partner in the law firm of Constangy, Brooks & Smith, LLC (Ex. 55X, pp. 99–100), strongly favored moving to a calendar-day-count system, for the following reason:

> [w]hat we've seen in some audits is companies that attempt to try to control the number of days that would be counted as lost work days by controlling the number of days that otherwise would be worked.* * *
>
> We * * * encountered one company that announced proudly in its newsletter that one particular employee should be congratulated because when she had to have surgery for carpal tunnel syndrome, clearly work related * * * she chose to have that surgery during

her vacation so that the company's million man hours of work without a lost time accident would not be interrupted. That doesn't make any sense where we encourage those kinds of things * * * We ought to consider a calendar count if only to address those kinds of situations. I understand that would cause problems with respect to those companies who use lost work days as a measure of the economic impact of injuries and illnesses in the workplace, but I suspect that a better measure of that would be worker's compensation. If it's a lost work day, you're going to pay comp on it. * * *

OSHA agrees with some of the points made by those in favor of, and those opposed to, changing over to calendar day counts. After a thorough review of the arguments for each alternative, however, OSHA has decided to require employers to count calendar days, both for the totals for days away from work and the count of restricted workdays. OSHA does not agree with those commenters who argued that the counting of calendar days away from work would be a significant burden. The Agency finds that counting calendar days is administratively simpler than counting scheduled days away and thus will provide employers who keep records some relief from the complexities of counting days away from work (and days of restricted work) under the old system. For the relatively simple injury or illness cases (which make up the great majority of recorded cases) that involve a one-time absence from work of several days, the calendar-day approach makes it much easier to compare the injury/illness date with the return-to-work date and compute the difference. This process is easier than determining each employee's normal schedule and adjusting for normal days away, scheduled vacations, and days the facility was not open. The calendar method also facilitates computerized day counts. OSHA recognizes that, for those injuries and illnesses that require two or more absences, with periods of work between, the advantages of the calendar day system are not as significant; OSHA notes, however, that injuries and illnesses following this pattern are not common.

Changing to a calendar day counting system will also make it easier to count days away or restricted for part-time workers, because the difficulties of counting scheduled time off for part-time workers will be eliminated. This will, in turn, mean that the data for part-time workers will be comparable to that for full-time workers, i.e., days away will be comparable for both kinds of workers, because scheduled time will not bias the counting method. Calendar day counts will also be a better measure of severity, because they will be based on the length of disability instead of being dependent on the individual employee's work schedule. This policy will thus create more complete and consistent data and help to realize one of the major goals of this rulemaking: to improve the quality of the injury and illness data.

OSHA recognizes that moving to calendar day counts will have two effects on the data. First, it will be difficult to compare injury and illness data gathered under the former rule with data collected under the new rule. This is true for day counts as well as the overall number and rate of occupational injuries and illnesses. Second, it will be more difficult for employers to estimate the economic impacts of lost time. Calendar day counts will have to be adjusted to accommodate for days away from work that the employee would not have worked even if he or she was not injured or ill. This does not mean that calendar day counts are not appropriate in these situations, but it does mean that their use is more complicated in such cases. Those employers who wish to continue to collect additional data, including scheduled workdays lost, may continue to do so. However, employers must count and record calendar days for the OSHA injury and illness Log.

Thus, on balance, OSHA believes that any problems introduced by moving to a calendar-day system will be more than offset by the improvements in the data from one case to the next and from one employer to another, and by the resulting improvements in year-to-year analysis made possible by this change in the future, i.e., by the improved consistency and quality of the data.

The more difficult problem raised by the shift to calendar days occurs in the case of the injury or illness that results on the day just before a weekend or some other prescheduled time off. Where the worker continues to be off work for the entire time because of the injury or illness, these days are clearly appropriately included in the day count. As previously discussed, if a physician or other licensed health care professional issues a medical release at some point when the employee is off work, the employer may stop counting days at that point in the prescheduled absence. Similarly, if the HCP tells the injured or ill worker not to work over the scheduled time off, the injury was severe enough to require days away and these must all be counted. In the event that the worker was injured or became ill on the last day before the weekend or other scheduled time off and returns on the scheduled return date, the employer must make a reasonable effort to determine whether or not the employee would have been able to work on any or all of those days, and must count the days and enter them on the Log based on that determination. In this situation, the employer need not count days on which the employee would have been able to work, but did not, because the facility was closed, or the employee was not scheduled to work, or for other reasons unrelated to the injury or illness.

Accordingly, the final rule adopts the counting of calendar days because this approach provides a more accurate and consistent measure of disability duration resulting from occupational injury and illness and thus will generate more reliable data. This method will also be easier and less burdensome for employers who keep OSHA records and make it easier to use computer programs to keep track of the data.

Capping the Count of Lost Workdays

OSHA proposed to limit, or cap, the total number of days away from work the employer would be required to record. This would have been a departure from OSHA's former guidance for counting both days away from work and restricted workdays. The former rule required the employer to maintain a count of lost workdays until the worker returned to work, was permanently reassigned to new duties, had permanent work restrictions, or was terminated (or retired) for reasons unrelated to the workplace injury or illness (Ex. 2, pp. 47–50).

OSHA's proposed regulatory text stated that ''[f]or extended cases that result in 180 or more days away from work, an entry of ''180'' or ''180+'' in the days away from work column shall be considered an accurate count'' (61 FR 4058). In the preamble to the proposal, OSHA explained that day counts of more than 180 days would add negligible information for the purpose of injury and illness case analysis but would involve burden when updating the OSHA records. The proposed preamble also asked several questions: ''Should the days away from work be capped? Is 180 days too short or long of a period? If so, should the count be capped at 60 days? 90 days? 365 days? or some other time period?'' (61 FR 4033)

A large number of commenters supported a cap on day counts (see, *e.g.*, Exs. 21; 27; 33; 51; 15: 26, 67, 72, 82, 85, 89, 95, 105, 108, 111, 119, 120, 121, 127, 132, 133, 136, 137, 141, 146, 153, 159, 170, 173, 176, 180, 182, 185, 188, 194, 195, 198, 199, 203, 205, 213, 224, 231, 233, 239, 242, 260, 262, 263, 265, 266, 269, 270, 271, 273, 278, 283, 287, 288, 289, 297, 298, 301, 304, 307, 310,

316, 317, 321, 332, 334, 335, 336, 341, 345, 346, 347, 348, 351, 368, 373, 374, 375, 377, 378, 384, 385, 387, 389, 390, 392, 397, 401, 404, 405, 434, 437, 440, 442). The most common argument was that capping the counts would reduce the burden on employers (see, *e.g.*, Exs. 21; 33; 15: 82, 95, 111, 146, 154, 159, 170, 176, 182, 188, 213, 231, 260, 262, 265, 273, 288, 289, 297, 301, 304, 305, 310, 341, 345, 346, 373, 389, 390, 401, 442) and simplify the OSHA recordkeeping system (see, *e.g.*, Exs. 21; 15: 188, 297, 373). Several commenters argued that such a change would produce a ''significant'' reduction in burden and cost (see, *e.g.*, Exs. 15: 154, 159, 203, 297). The Miller Brewing Company comment (Ex. 15: 442) was representative: ''We endorse this cap on the days away from work (DAFW) calculation. Once a case reaches 180 days, it is clearly recognized as a serious case. The requirement to calculate days away from work beyond 180 is a time consuming administrative exercise which provides no value-added information relative to the severity of a given case. Again, we support this rule change and OSHA's attempt to simplify the recordkeeping process.''

Commenters also pointed out that limiting the day counts would make it easier to count days for cases that span two calendar years (see, *e.g.*, Exs. 15: 153, 194, 195, 289). Other commenters stated that it was difficult to modify the former year's records (Ex. 15: 153) and that the day count cap would ease the burden of tracking cases that span two calendar years (Ex. 15: 289).

Several commenters stated that the benefits of recording extended day counts were insignificant (see, *e.g.*, Exs. 15: 111, 159, 176, 184, 260, 262, 265, 288, 297, 373, 401, 430, 434, 442), that they added negligible information for case analysis or safety and health program evaluation (Ex. 15: 434), and that there was no ''value added information'' from high day counts (see, *e.g.*, Exs. 15: 260, 262, 265, 401, 442). Others stated that capping the day counts would provide ''adequate data'' (see, *e.g.*, Exs. 15: 111, 159, 304, 345) and that there would be no loss of significant data for analysis (see, *e.g.*, Exs. 15: 170, 184, 297, 341, 373). The McDonnell Douglas Corporation (Ex. 15: 297) argued that a cap ''[w]ould allow industry to avoid the significant and costly paperwork burdens associated with tracking lost workdays, without any appreciable reduction in OSHA's ability to identify significant workplace injuries and illnesses or to assure continuing improvement in workplace safety and health.''

Support for capping the count of days away from work was not unanimous, and several commenters opposed a day count cap (see, *e.g.*, Exs. 15: 31, 62, 197, 204, 225, 277, 294, 302, 350, 359, 369, 379). The National Safety Council stated that ''[n]o cap on counting lost workdays is necessary provided that the count automatically ends with termination, retirement, or entry into long-term disability. Only a small proportion of cases have extended lost workday counts so there is little additional recordkeeping burden. The additional information gained about long-term lost workday cases is important and keeps employers aware of such cases'' (Ex. 15: 359). Other commenters stressed that it was important to obtain an accurate accounting of days away to assess the severity of the case (see, *e.g.*, Exs. 15: 294, 379, 429, 440), that the counts were needed to make these cases visible (see, *e.g.*, Exs. 15: 294, 440), and that the counts demonstrate the impact of long term absences (Ex. 15: 62). For example, the Boeing Company (Ex. 15: 294) argued that

> If the count is suspended after 180 days (or any other arbitrary number), an employer will lose valuable information regarding the true amount of lost work days and their associated costs. The experience of The Boeing Company indicates that there are a small number of cases that have many more than 180 days. The result is a disproportionate amount of total costs. Not having visibility of these cases would be a mistake.

The United Steelworkers of America (USWA) offered several reasons for not adopting a day count cap: ''The USWA also strongly opposes capping lost work day cases at 180. We believe that no cap is necessary or desirable. Only a very small proportion of cases have extended lost workdays recorded so there is little additional recordkeeping burden. The additional information gained about long-term lost workday cases is important in evaluating the severity of the injury and it keeps attention on such cases'' (Ex. 15: 429).

The International Brotherhood of Teamsters (IBT) opposed the capping of day counts on the basis that the OSH Act requires ''accurate'' records, stating that:

> The IBT opposes the elimination of counting the days of restricted work activity and opposes capping the count of ''days away from work'' at 180 days. The IBT uses the restricted work activity day count to gauge the severity of an injury or illness. We are supported by the OSH Act, section 24(a) ''the Secretary shall compile accurate statistics on work injuries and illnesses which shall include all disabling, serious, or significant injuries or illnesses. * * *. The International Brotherhood of Teamsters maintains that the recording of restricted work activity day counts and counting of days away from work enables OSHA to compile accurate data on serious and significant injuries. (Ex. 15: 369)

After a review of the evidence submitted to the record, OSHA has decided to include in the final rule a provision that allows the employer to stop counting days away from work or restricted workdays when the case has reached 180 days. OSHA's primary reason for this decision is that very few cases involve more than 180 days away or days of restricted work, and that a cap of 180 days clearly indicates that such a case is very severe. Continuing to count days past the 180-day cap thus adds little additional information beyond that already indicated by the 180-day cap.

Selection of the Day Count Cap

A large number of commenters specifically supported the 180 day cap proposed by OSHA (see, *e.g.*, Exs. 51; 15: 26, 27, 67, 70, 89, 111, 121, 127, 136, 137, 141, 153, 154, 159, 170, 176, 184, 224, 233, 242, 260, 262, 263, 265, 266, 269, 270, 278, 283, 288, 298, 316, 335, 341, 368, 377, 385, 401, 404, 423, 430, 437, 442). The Chemical Manufacturers Association (CMA) stated that ''CMA supports the use of a cap on the number of days away from work that must be counted. Once an employee misses more than 180 days from work * * * due a workplace injury or illness, the relative seriousness of the incident is determined and little benefit is derived from continuing to count the number of days for OSHA's recordkeeping system.'' The Fertilizer Institute (Ex. 15: 154) supported 180 days because it ''is consistent with most corporate long-term disability plans.''

Many commenters who supported a cap on counting days away recommended that OSHA adopt a number of days other than 180 (see, *e.g.*, Exs. 21; 37; 15: 60, 71, 75, 82, 85, 105, 108, 119, 122, 132, 180, 182, 185, 188, 194, 195, 198, 199, 203, 213, 239, 246, 271, 272, 287, 289, 297, 303, 304, 305, 307, 308, 317, 336, 347, 348, 351, 375, 378, 384, 385, 404, 405, 407, 409, 410, 414, 425, 431, 434). The most common argument against capping at 180 days was that a few very serious cases would skew the statistical data (see, *e.g.*, Exs. 15: 75, 180, 246, 271, 385, 409). Hoffman-La Roche, Inc. argued for 90 days on the grounds that ''90 days is more than sufficient to get a read on the severity of the injury/illness. This would enable employers to obtain meaningful data that is not skewed by one or two cases'' (Ex. 15: 271).

Commenters suggested a number of alternatives, including 30 days (see, *e.g.*, Ex. 15: 414); 60 days (see, *e.g.*, Exs. 15: 60, 108, 119, 194, 203, 246, 287, 405); 60 or 90 (Ex. 15: 407); 90 days (see, *e.g.*, Exs. 21; 15: 75, 85, 105, 132, 182, 185, 239, 271, 272, 289, 297, 303, 317, 336, 347, 378, 409, 410, 425, 431); 50 to 100 days (see, *e.g.*, Exs. 37; 15: 384); 90 to 120 days (Ex. 15: 71); 90 or 180 days (Ex. 15: 434); 120 days (Ex. 15: 198); the equivalent of six months (see, *e.g.*, Exs. 15: 82, 188, 199, 213, 304, 307, 308, 351, 375); one year (Ex. 15: 122); and 60 days after the beginning of the new year (see, *e.g.*, Ex. 15: 195).

The most common alternative recommended by commenters was 90 days (see, *e.g.*, Exs. 21; 15: 75, 85, 105, 132, 182, 185, 239, 271, 272, 289, 297, 303, 317, 336, 347, 378, 409, 410, 425, 431). These commenters argued that 90 days would reduce the burden without a loss of information (see, *e.g.*, Exs. 15: 75, 85, 239, 297, 425), that 90 days is sufficient to determine severity (see, *e.g.*, Exs. 15: 85, 105, 271 272, 289, 303, 410), that 90 days matches existing labor agreements (see, *e.g.*, Exs. 15: 378), and that 90 days limits the problems caused by a case that extends over 2 years (see, *e.g.*, Exs. 15: 407, 431).

NIOSH (Ex. 15: 407) commented that:

NIOSH agrees with OSHA that ''day counts greater than 180 days add negligible information while entailing significant burden on employers when updating OSHA records.'' Therefore, NIOSH agrees with the concept of capping the count of days away from work at a maximum of 180 days, and recommends that OSHA also consider caps of 60 or 90 days away from work.

Currently, the Annual Survey of Occupational Injuries and Illnesses reports distributional data for the number of days away from work and the median number of days away from work for demographic (age, sex, race, industry, and occupation) and injury/illness (nature, part of body, source, and event) characteristics. The largest category of days away from work reported by the BLS for days away from work is ''31 days or more.'' In 1992, the Annual Survey reported median days away from work that ranged from 1 day to 236 days [U.S. Department of Labor 1995]. For most demographic and injury/illness categories, capping the count of days away from work at 180 days will not alter the values for either the percent of injuries in the ''31 days or more'' category or median days away from work.

OSHA may wish to consider capping the count of days away from work at either the 60 or the 90 day level. Employers could be instructed to enter a value of 61+(or 91+) to indicate that the recorded injury or illness condition existed beyond the cap on the count of days away from were based on the 1992 Annual Survey data, no reported industry and only one reported occupation had a median of greater than 60 days (dental hygienist, median = 71). There was also a very small number of injury/illness characteristics with medians between 60 and 90 days or with medians exceeding 90 days. Eleven of the 13 instances in which the median exceeded 60 days away from work were based on distributions involving a small number of estimated cases i.e., only 100 to 400 nationally. Capping the count of days away from work at either 60 or 90 days would still allow the reporting of the proportion of cases involving days away from work in the ''31 days or more category'' that is currently being reported by the BLS. A minor limitation of capping the count of days away from work at 60 or 90 days is that for a very small number of characteristics, the median would have to be reported as exceeding the cap.

Two commenters suggested that OSHA use months instead of days as the measurement (Exs. 15: 304, 404), and a number of commenters pointed out that OSHA's proposed 180 days should be 125 if based on 6 months of actual workdays instead of calendar days (see, *e.g.*, Exs. 15: 199, 213, 307, 308, 348).

After careful consideration, OSHA has decided to cap the day counts at 180 days and to express the count as days rather than months. The calendar month is simply too large and unwieldy a unit of measurement for this purpose. The calendar-day method is the simplest method and will thus produce the most consistent data.

OSHA has decided to cap the counts at 180 days to eliminate any effect such capping might have on the median days away from work data reported by BLS. This cap will continue to highlight cases with long periods of disability, and will also reduce the burden on employers of counting days in excess of 180. Using a shorter threshold, such as 90 or even 120 days, could impact the injury and illness statistics published by the BLS, and could thus undermine the primary purpose of this regulation: to improve the quality and utility of the injury and illness data. Using a shorter time frame would also make it harder to readily identify injuries and illnesses involving very long term absences. The rule also does not require the employer to use the designation of 180+ or otherwise require cases extending beyond 180 days to be marked with an asterisk or any other symbol, as suggested by various commenters (see, *e.g.*, Exs. 15: 31, 62, 153, 289, 374, 407, 425). Employers who wish to attach such designations are free to do so, but OSHA does not believe such designations are needed.

Counting Lost Workdays When Employees Are No Longer Employed by the Company

The proposed rule contained a provision that would have allowed the employer to stop counting the days away from work when the worker was terminated for reasons unrelated to an injury or illness (61 FR 4058). This provision would have continued OSHA's former policy on this matter, which allowed the employer to stop counting days away or restricted workdays when the employee's employment was terminated by retirement, plant closings, or like events unrelated to the employee's work-related injury or illness (Ex. 2, pp. 49, 50). The final rule, at paragraph 1904.7(b)(3)(vii), permits employers to stop counting days away if an injured or ill employee leaves employment with the company for a reason unrelated to the injury or illness. Examples of such situations include retirement, closing of the business, or the employee's decision to move to a new job.

Paragraph 1904.7(b)(3)(vii) also requires employers whose employees have left the company because of the injury or illness to make an estimate of the total days that the injured or ill employee would have taken off work to recuperate. The provisions in paragraph 1904.7(b)(3)(vii) also apply to the counting of restricted or transferred days, to ensure that days are counted consistently and to provide the simplest counting method that will collect accurate data. OSHA's reasoning is that day counts continue to be relevant indicators of severity in cases where the employee was forced to leave work because of the injury or illness.

Handling Cases That Cross Over From One Year to the Next

A special recording problem is created by injury and illness cases that begin in one year but result in days away from work or days of restricted work in the next year. Under the former rule, the employer was to record the case once, in the year it occurred, and assign all days away and restricted days to that case in that year (Ex. 2, p. 48). Under the rule being published today, this policy still applies. If the case extends beyond the time when the employer summarizes the records following the end of the year as required by § 1904.32, the employer is required by paragraph 1904.7(b)(3)(viii) to update the records when the final day count is known. In other words, the case is entered only in the year in which it occurs, but the original Log entry must subsequently be updated if the day count extends into the following year.

In addition to the NIOSH (Ex. 15: 407) comments on the day counts summarized above, the Society for Human Resource Management (Ex. 15: 431) urged OSHA to adopt a lower day

count cap to limit the ''crossover'' problem. Two commenters urged OSHA to take a new approach to cases that extend over two or more years. Both the Laborers' Health & Safety Fund of North America (Ex. 15: 310) and the Service Employees International Union (Ex. 15: 379) recommended that these cases be recorded in each year, with the days for each year assigned to the appropriate case. The Laborers' Health & Safety Fund of North America (Ex. 15: 310) stated:

> One concern with a large number of days away from work is how to record the lost days which begin in one calendar year and end in a following calendar year. We suggest that it is best to record the number of days lost from the date of the injury to the end of the calendar year, and to enter the injury again on the following year's OSHA 300 with the remaining days of lost time up to the 180 day maximum. A box should be available to indicate that the entry is a continuation from the prior year.

As stated earlier, OSHA has decided on the 180 day cap for both days away and days of restricted work cases to ensure the visibility of work-related injuries and illnesses with long periods of disability. The final rule also requires the employer to summarize and post the records by February 1 of the year following the reference year. Therefore, there will be some cases that have not been closed when the records are summarized. Although OSHA expects that the number of cases extending over two years will be quite small, it does not believe that these cases warrant special treatment. A policy that would require the same case to be recorded in two years would result in inaccurate data for the following year, unless special instructions were provided. Accordingly, the final rule requires the employer to update the Log when the final day count is known (or exceeds 180 days), but to record the injury or illness case only once. This approach is consistent with OSHA's longstanding practice and is thus familiar to employers.

Miscellaneous Day Counting Issues

Two commenters provided additional comments for OSHA to consider on the issue of counting days away from work. The Laborers' Health & Safety Fund of North America (Ex. 15: 310) recommended that OSHA require employers to enter a count of 365 days away from work on the Log for any fatality case:

> In a recent project we used OSHA 200 data from road construction and maintenance employers to determine the causes and relative severities of serious injuries. The number of lost workdays plus restricted work activity days for an injury event or type was used as a measure of severity. In quite a few individual injury cases, the number of days away from work entry was not available because of the severity of the injury or because the injury resulted in a fatality. For recordkeeping purposes, we would suggest a maximum cap of 180 days for a non-fatal serious injury of long duration, and an automatic entry of 365 for fatalities. Using this method, the most severe cases would be weighted appropriately, with fatalities carrying the heaviest weight. Also, entering a lost workday number for fatalities would enable fatalities to count in a single and simple ''severity-weighted Lost Work Day Injury and Fatality (LWDIF) rate''.

OSHA has not adopted the Laborers' Health & Safety Fund of North America recommendation. OSHA believes that fatalities must be considered separately from non-fatal cases, however severe the latter may be. When an employee dies due to a work-related injury or illness, the outcome is so severe and so important that it must be treated separately. Merging the two types of cases would diminish the importance of fatality entries and make the days away data less useful for determining the severity of days away injury cases. Accordingly, the final rule being published today does not reflect this recommendation.

The Westinghouse Corporation (Ex. 15: 405) suggested that OSHA look at days of hospitalization as a measure of severity, stating ''[t]he number of days hospitalized does provide a more objective indication of the seriousness of injury or illness, if for no other reason than cost control by insurance companies. If OSHA can document a legitimate use for an indicator of the ''seriousness'' of an injury, it may want to consider hospital stay time.'' OSHA has considered the use of hospitalized days, but has rejected them as a measure of injury or illness severity. Although these day counts may be a reasonable proxy for severity, they are applicable only in a relatively small number of cases.

Paragraph 1904.7(b)(4) Restricted Work or Transfer to Another Job

Another class of work-related injuries and illnesses that Section 8(c) of the Act identifies as non-minor and thus recordable includes any case that results in restriction of work or motion[2] or transfer to another job. Congress clearly identified restricted work activity and job transfer as indicators of injury and illness severity.

In the years since OSHA has been enforcing the recordkeeping rule, however, there has been considerable misunderstanding of the meaning of the term ''restricted work,'' and, as a result, the recording of these cases has often been inconsistent. The Keystone Report (Ex. 5), which summarized the recommendations of OSHA stakeholders on ways to improve the OSHA recordkeeping system, noted that restricted work was perhaps the least understood of the elements of the system.

This section of the Summary and Explanation first discusses the former recordkeeping system's interpretation of the term restricted work, describes how the proposed rule attempted to revise that interpretation, and then summarizes and responds to the comments OSHA received on the proposed approach to the recording of work restriction and job transfer cases. Finally, this section explains the final rule's restricted work and job transfer requirements and OSHA's reasons for adopting them.

The Former Rule

The former recordkeeping rule did not include a definition of restricted work or job transfer; instead, the definition of these terms evolved on the basis of interpretations in the BLS *Guidelines* (Ex. 2, p. 48). The *Guidelines* stated that restricted work cases were those cases ''where, because of injury or illness, (1) the employee was assigned to another job on a temporary basis; or (2) the employee worked at a permanent job less than full time; or (3) the employee worked at his or her permanently assigned job but could not perform all the duties connected with it.'' The key concepts in this interpretation were that work was to be considered restricted when an employee experienced a work-related injury or illness and was then unable, as a result of that injury or illness, to work as many hours as he or she would have been able to work before the incident, or was unable to perform all the duties formerly connected with that employee's job. ''All duties'' were interpreted by OSHA as including any work activity the employee would have performed over the course of a year on the job.

OSHA's experience with recordkeeping under the former system indicated that employers had difficulty with the restricted work concept. They questioned the need for keeping a tally of restricted work cases, disagreed with the ''less than full time'' concept, or

[2] The term *restricted motion* has been interpreted to mean restricted work motion and to be essentially synonymous with *restricted work.* OSHA does not distinguish between the two terms. OSHA's former *Guidelines* (Ex. 2, p. 43) clearly stated that a restriction of work or motion, such as that resulting from a bandaged finger, that did not also impair work was not recordable, and that is also the interpretation of the final rule.

were unsure about the meaning of ''all the duties connected with [the job].'' (In OSHA's experience, employers have not generally had difficulty understanding the concept of temporary job transfer, which are treated in the same way as restricted work cases for recordkeeping purposes. The following discussion thus focuses on restricted work issues.) The changes OSHA proposed to make to the work restriction concept (61 FR 4033) were intended to address these employer concerns.

The Proposed Rule

The proposal would have changed restricted work recordkeeping practices markedly. For example, the proposal would have required employers to acknowledge that the case involved restricted work by placing a check in the restricted work column on the Log but would no longer have required them to count the number of restricted work days associated with a particular case. At the time of the proposal, OSHA believed that dropping the requirement to count restricted days was appropriate because the Agency lacked data showing that restricted work day counts were being used by employers in their safety and health programs. In addition, the proposal would have limited the work activities to be considered by the employer in determining whether the injured or ill worker was on restricted work. Under the former rule, employers had to consider whether an injured or ill employee was able to perform ''all the duties'' normally connected with his or her job when deciding if the worker's job was restricted; OSHA interpreted ''all the duties'' to include any work activity the employee performed at any time within a year. Under the proposal, the duties that the employer would have been required to consider were narrowed to include only (1) those work activities the employee was engaged in at the time of injury or illness onset, or (2) those activities the employee would have been expected to perform on that day (61 FR 4059). OSHA also requested comment in the proposal on the appropriateness of limiting the activities to be considered and on other definitions of work activities that should be considered, *e.g.*, would it be appropriate not to consider an employee to be on restricted work if he or she is able to perform any of his or her former job activities? (61 FR 4059).

Comments on the Proposed Rule's Restricted Work and Job Transfer Provisions

The comments OSHA received on these provisions were extensive. Commenters offered a wide variety of suggestions, including that OSHA eliminate restricted work activity cases from the recordkeeping system altogether, that the proposed definition of restricted work activity be changed, that the proposed approach be rejected, that it be adopted, and many other recommendations. These comments are grouped under topic headings and are discussed below.

Eliminate the Recording of Restricted Work Cases

Several commenters recommended that OSHA completely eliminate the recording of restricted work cases because, in the opinion of these commenters, the concept confused employers, created disincentives to providing light duty work or return-to-work programs, and provided no useful information (see, *e.g.*, Exs. 15: 119, 203, 235, 259, 336, 414, 427). For example, the American Bakers Association said, ''We believe that the concept and definitions of 'restricted work activity' should be eliminated. That term and its proposed definition is so ambiguous as to be unworkable, and information gleaned from that terminology would have little reliability or usefulness'' (Ex. 15: 427).

The National Grain and Feed Association agreed, arguing that the recording of restricted work cases should be eliminated on the following grounds:

> [w]e agree with the conclusion of the Keystone Report that ''the recording of restricted work is perhaps the least understood and least accepted concept in the recordkeeping system.'' We disagree with OSHA, however, that the concept of restricted work is meaningful. For example, there is a wide range of restrictions that may be placed on an injured employee's activity after returning to work depending on the nature of the injury (*e.g.*, the range of work possible for an employee who has experienced a slight sprain versus an employee with a broken bone). Additionally, the concept of restricted work is greatly dependent on individual employee motivation and job description. * * * Importantly, we believe the concepts embodied in the proposed restricted work definition run counter to modern work practices that encourage workers to return to productive work at the worksite. Workers who have experienced minor injuries on the job can return to productive work under employer ''return-to-work'' programs. For this reason, the concept of restricted work is arbitrary and ultimately of little use to either evaluating the effectiveness of an employer's safety and health programs or determining the exposure of workers to a hazard at a specific worksite. We, therefore, recommend that the Agency delete the category of restricted work injuries from the proposed changes to 29 CFR 1904. Removal of this section will simplify the recordkeeping system and make it more ''user friendly.'' We support deletion of this category of injury because we think it will make the system more complex and is inconsistent with current practices of returning employees back to productive work at the earliest date (Ex. 15: 119).

Revise the Proposed Definition of a Restricted Work Case

Most of the remaining comments recommended either that the definition of restricted work in the final rule be revised to include a more inclusive set of job activities or functions or a less inclusive set. For example, the Small Business Administration (Ex. 51) was concerned that:

> [t]he new definition for classifying ''restricted work activity'' could increase the number of cases that would be subject to this standard, and subsequently, classified as a recordable incident. Small businesses would face increased recordkeeping. Under the proposed definition, a case would be determined as a ''restricted work activity'' if the employee cannot perform what he or she was doing at the time of the illness or injury, or he or she could not perform the activities scheduled for that day. While this would be a very simple method, it would encompass more recordable incidents. Many workers have a myriad of tasks associated with their job. If an employee can return to work and perform functions within their job description, this should not be considered ''restricted work activity''. * * *

Several commenters recommended that OSHA rely on a definition of restricted work that would focus on ''non productive work'' and exclude the recording of any case where the employee was still productive (see, *e.g.*, Exs. 15: 9, 45, 46, 67, 80, 89, 247, 437). For example, Countrymark Cooperative, Inc. (Ex. 15: 9) stated:

> [w]e disagree with a portion of the definition for restricted work activity. We agree that this should include injuries or illnesses where the worker is not capable of performing at full capacity for a full shift. However, by addressing the task that they were engaged in at the time of the injury will create problems. Most employees today have numerous assignments and responsibilities. They move from one task to another during a given day and during a given week. What they are doing at the time they are injured may not be the assignment for the next day or the next week. In these cases, they may be back at work in a fully productive role, but not doing the same task as when they were hurt. If they are performing a fully productive role within the same job description, but cannot perform the role of the job they were doing at the time, they should not be penalized. In many cases, this job task may not be active at the time they return. * * * It should be very clear that the ability to return an employee to a productive role (whether 50% or 100%) is extremely important to any ''Return-to-Work'' Program. If that person is returned to work and is

performing at full capacity in a given task within their job description, this should not be recorded unless it meets other criteria such as medical treatment. If we return to the days of recording these and penalizing the employer, they may be inclined to return to the days of only allowing employees to return to work when they are 100% in all given tasks within their job description. If this occurs, we all lose. * * * We do agree that any time an employee is returned to work and is restricted to only perform certain jobs, can only return for a limited duration, or must be reassigned to another task, this should be recorded as a restricted work case (Ex. 15: 9).

Others recommended that OSHA adopt the Keystone Report's definition of restricted work (see, *e.g.*, Exs. 15: 123, 129, 145, 225, 359, 379, 418). For example, the National Safety Council recommended:

[t]he concept of restricted work activity as described on page 4046 [of the **Federal Register**] is one with which the Council concurs, but the specific wording in proposed section 1904.3 is less clear. The colon following the opening clause of the definition ''at full capacity for a full shift:'' seems to mean that the employee must be able to perform the task during which he/she was injured and the other tasks he/she performed or would have performed that day not only for the normal frequency or duration, but ''at full capacity for a full shift.'' For example, if the employee were required to open a valve at the start of a shift and close it at the end of the shift, the current wording seems to say that if the employee could not spend the entire shift opening and closing the valve, then his/her work activity is restricted. * * * The Council also believes that the concept of restricted work activity as formulated by the Keystone Report is appropriate in that it represents a consensus among the various stakeholder groups. For this reason, we also recommend that the task limitations refer to the week's activities rather than the day's activities (Ex. 15: 359).

The Union of Needletrades, Industrial and Textile Employees (UNITE) agreed with the National Safety Council that a different time period should be used in determining what job activities to consider. UNITE suggested that OSHA use the employee's monthly, rather than daily or weekly, duties to define restricted work activity (Ex. 15: 380).

A few commenters expressed concern that use of the proposed restricted work definition could lead employers to include unusual, extraordinary or rarely performed duties in the ''work activities'' to be considered when determining whether a case was a restricted work case (see, *e.g.*, Exs. 15: 80, 247). For example, the Arizona Public Service Company said:

[d]etermining restricted duty days should remain as it currently is in the Guidelines. The restriction should focus on the ability of the employee to perform all or any part of his or her normal job duties. Focusing on what specifically they were doing at the time of injury could incorrectly base this determination on an activity that is performed rarely. Also, focusing on what they were scheduled to do for that week would not be useful for those whose schedules can change daily (Ex. 15: 247).

Adopt the Americans With Disabilities Act Definition of Essential Duties

The Laboratory Corporation of America's comment (Ex. 15: 127) was typical of those of several commenters who suggested that OSHA use the concept of essential job duties that is also used for the administration of the Americans with Disabilities Act (ADA) (see, *e.g.*, Exs. 15: 127, 136, 137, 141, 224, 266, 278, 431):

[t]he definition used by the Americans with Disability Act (ADA) would be very useful here. That definition indicates that restricted work exists if an employee is unable to perform the essential functions of his/her job. Since these essential functions are identified in the employee's job description, the employer would have a consistent ''yardstick'' with which to make this determination for each employee.

Adoption of the Proposed Approach Will Lead to Underreporting

Some commenters, such as the AFL–CIO, opposed the proposed approach to restricted work on the grounds that it would result in underreporting:

[w]e believe this proposed provision would entice employers to manipulate records and lead to further under-reporting. We strongly suggest that the Agency adopt the Keystone Report recommendation of restricted work which requires an employer to record if the employee is (1) unable to perform the task he or she was engaged in at the time of injury or onset of illness (task includes all facets of the assignment the employee was to perform); or (2) unable to perform any activity that he or she would have performed during the week (Ex. 15: 418).

Other commenters agreed (see, *e.g.*, Exs. 20, 15: 17, 129, 418). For example, the United Brotherhood of Carpenters (UBC) Health & Safety Fund of North America argued in favor of a broader definition to avoid this problem:

[t]he majority of workers represented by the UBC, such as carpenters and millwrights, routinely perform a wide variety of tasks during their normal workdays in either construction or industrial settings. Therefore, OSHA should not limit the classification of ''restricted work activity'' to either ''the task he or she was engaged in at the time of the injury'' or his or her daily work activity (daily work activity includes all assignments the employee was expected to perform on the day of the injury or onset of illness)'' as proposed. The UBC feels that the current proposal would allow for manipulation of the records and will lead to serious under reporting. Many workplaces have armies of ''walking wounded'' rather than reporting lost or restricted work activity. OSHA should at the very least adopt the position of the Keystone Report which recommended that restricted work activity should be recorded if the employee is ''(1) unable to perform the task he or she was engaged in at the time of the injury or onset of illness, or (2) unable to perform any activity that he or she would have performed during the week.'' The UBC believes that the best definition of restricted work activity would be any illness or injury which inhibits, interferes with, or prevents a worker from performing any or all of the functions considered to be a normal part of his or her trade or occupation as defined in the applicable job description (Ex. 20).

Do Not Count Incidents Involving Only One or a Few Days as Restricted Work

A number of commenters recommended that restricted work activity involving only the day of injury/illness onset should not trigger an OSHA recordable case (see, *e.g.*, Exs. 15: 19, 44, 146, 154, 156, 198, 364, 374, 391). Typical of these comments is one from the Society of the Plastics Industry, Inc.:

[e]mployers have had problems with OSHA's definition of restricted work activity because OSHA's interpretation that having any work restriction, even one which lasts only for the remainder of the shift and which imposes no significant limitations on the employee's ability to perform his or her job, makes a case recordable. OSHA should adopt the administratively simple and common-sense rule that restricted work activity on the day of the case report does not make the case recordable. . . . The definition of ''restricted work activity'' should be clarified to state that the criteria apply only to days following the day of injury or onset of the illness. An employee's inability to work a full shift on the actual date of injury or onset of illness should not require recording as a restricted work case. As noted above, because OSHA's interpretation that having any work restriction, even one which lasts only for the remainder of the shift and which imposes no significant limitations on the employee's ability to perform his or her job, makes a case recordable, many non-serious, non-disabling cases are now recorded. Cases which do not otherwise meet the recordability criteria should not be recordable. Therefore, as recommended above, OSHA should eliminate the current requirement to record cases in which restricted work activity occurs only on the day of the case report (Ex. 15: 364).

The Kodak Company urged OSHA not to count cases involving restrictions lasting only for three days as restricted work cases on the grounds that such cases are ''minor'': ''Restricted work activity allows employers and employees to remain at work. This is a win-win situation for both. Kodak suggests restricted work activity be counted only if the restriction lasts

longer than 3 working days. Hence, only serious cases would be recorded'' (Ex. 15: 322).

Adopt the Proposed Approach

A large number of commenters supported OSHA's proposed definition, however (see, *e.g.*, Exs. 27, 15: 26, 61, 70, 133, 159, 171, 185, 199, 204, 242, 263, 269, 270, 272, 283, 303, 305, 307, 317, 318, 324, 334, 347, 351, 373, 375, 377, 378, 384, 390, 392, 405, 409, 413, 425, 430). Typical of these were comments from the New Jersey Department of Labor (Ex. 15: 70), which commented:

[p]roviding a clear definition of what constitutes restricted work and an item to indicate that an injured employee has been shifted to restricted work activity should improve the accuracy and completeness of case reporting. Identifying the actual number of cases in which employees are shifted to alternate work, which are thought to be under reported, and adding the date when the employee returned to his/her usual work will help to assess the impact of these incidents.

The American Petroleum Institute, which believed that the proposed definition would be easy to interpret and would therefore improve recording consistency, stated: ''API strongly supports OSHA's proposed definition of restricted activity. Because it is much more logical and easy to understand than the current definition, API believes it will lead to greater consistency'' (Ex. 15: 375).

Use Different Triggers Than Those Proposed

The Commonwealth Edison Company recommended that restricted work be defined only in terms of the hours the employee is able to work, not the functions the employee is able to perform:

[C]omEd disagrees with OSHA on its definition of ''restricted work activity''. We propose that OSHA consider that restricted work activity simply state ''Restricted work activity means the worker, due to his or her injury or illness, is unable to work a full shift.'' OSHA's proposed definition of restricted work activity is even more confusing than the current one. ComEd's proposed definition will allow quantifiable, direct cost tracking for this category of injury or illness. Workers will more than likely have some kind of meaningful work waiting for them if the injury is not disabling. If he or she is able to work the required normal shift hours, don't count the case as restricted. If they miss the entire shift, count is as a day away from work. If they miss part of the shift, count it as restricted (Ex. 15: 277).

Two commenters suggested that a case should only be considered restricted when it involves both medical treatment *and* work restrictions (Exs. 15: 9, 348). For example, the E. I. du Pont de Nemours & Company (DuPont) said that the

''Restricted Work Activity'' definition is a definite improvement over the current one. Suggest making treatment AND restriction the criteria. An insignificant injury can result in being told not to climb ladders. This does not negate the ability to do the job; it just limits the job to levels where ladder climbing is not required. * * * Restricted work activity is more dependent on timing and job than on injury severity. It doesn't necessarily focus on hazardous conditions. Certainly the definition in the proposed guidelines is far more specific and appropriate than the current one. We suggest consideration be given to dropping the Restricted category where medical treatment is not also given. For example, a slight muscle strain will result in advice not to climb ladders. The case would be in the restricted category although the treatment, if any, would be at the first aid level. Injury severity is the equivalent of a cut finger'' (Ex. 15: 348).

Other comments sought a broader, more inclusive definition of restricted work, one that relies on job descriptions (see, *e.g.*, Exs. 15: 41, 62, 198, 426). For example, Robert L. Rowan, Jr. stated:

[t]he definition of ''restricted work activity'' also concerns me and I believe it is unsuitable. The definition refers to an employee who is not capable of performing at full capacity for a full shift the ''task'' that he or she was engaged in at the time of the injury or onset of illness. The definition should include ''any and all tasks'' within the employee's clearly defined job description'' (Ex. 15: 62).

The Maine Department of Labor, however, preferred the former rule's interpretation, with some modifications:

[w]e agree that there should be no mention of ''normal'' duties in the definition. Include: temporary transfer to a position or department other than the position or department the worker was working at when he/she was injured. Some of these can be detected on payroll records; only being able to work part of their workday. Time forms could raise suspicion here; a health care provider puts the person on written restrictions unless the employer can show that the restrictions listed do not impact the employee's ability to do his or her scheduled job during the time period of the restrictions. Keep a copy of the restrictions in the file. The doctor's name on the OSHA 301 serves as another possible check (Ex. 15:41).

Miscellaneous Comments and Questions

There were also a variety of miscellaneous comments and questions about the proposed approach to the recording of restricted work cases. For example, Bob Evans Farms suggested that:

[w]hen considering this proposal, OSHA needs to keep in mind the special nature of the restaurant business. It is not uncommon for a cook to cut himself or herself, apply a Band-Aid, and then temporarily be reassigned to janitorial work for a day or two to keep the cut dry while it heals. This could be considered work duty modification and would then need to be reported to OSHA. As you can see, this type of minor occurrence would clog the system with needless paper (Exs. 15: 3, 4, 5, 6).

Phibro-Tech, Inc. offered this comment:

[a] factory employee who normally performs heavy labor may be assigned office work as a restricted work activity, and may not actually be contributing anything meaningful to the job. Will employers be required to limit what is considered ''light duty'' tasks? Will there be directives as to when an employee should really be off work or when he can be on ''light duty''? Occupational physicians all have different opinions as to when an employee can return for light or full duty. It would be helpful to have more direction on this issue so employees aren't sent back to work too soon or kept off on lost time too long (Ex. 15: 35).

The law firm of Constangy, Brooks & Smith, LLC, asked, ''[w]ould a restriction of piece rate or production rate be considered restricted duty under the proposed definition even though it is not considered restricted duty under the present guidelines?'' (Ex. 15: 428). Miller Brewing Company added, ''[w]ould also recommend that OSHA attempt to clarify whether a treating physician's [non-specific] return to work instructions such as ''8 hours only,'' ''self restrict as needed,'' and ''work at your own pace'' will constitute restricted work activity under the proposed recordkeeping rule'' (Ex. 15: 442).

The Pacific Maritime Association stated:

This is another example where the ILWU/PMA workforce does not fit into the proposed recordkeeping system. The regulation as written pertains to employers who assign their employees to work tasks. As previously mentioned, in our industry it is the employee who selects the job they will perform. This dispatch system, or job selection process, presents many problems when the maritime industry is required to conform to requirements established for traditional employee/employer relationships found in general industry. At the present time there is no method available to determine why an individual longshoreman selects a specific job. Therefore, the requirement to identify, track, and record ''restricted work activity'' may be impossible to accomplish [in the maritime industry] (Ex. 15: 95).

Preventive Job Transfers

Several commenters (see, *e.g.*, Exs. 25; 15: 69, 156, 406) urged OSHA to make some accommodation for ''preventive

transfers'' and medical removals. Many transfers and removals of this nature are related to work-related musculoskeletal disorders and are used to prevent minor musculoskeletal soreness from becoming worse. The following comments are representative of the views of these commenters. The Ogletree, Deakins, Nash, Smoak & Stewart (ODNSS) coalition commented:

[t]his definition [the proposed definition of restricted work] is overly broad, penalizes employers who have a light duty program in place, and fails to take into account that (1) today's employees increasingly are cross trained and perform varied tasks, and (2) the ability of an employee to perform alternative meaningful work mitigates the seriousness of the inability to perform work in the two categories set out in the definition as proposed. The ODNSS Coalition recommends curing these defects by adding the following proviso to the proposed definition: ''The case should be recorded as a restricted work case UNLESS the restrictive work activity is undertaken to relieve minor soreness experienced by a newly hired or transferred employee during a break-in phase to prevent the soreness from worsening, or the employee otherwise is able to perform other existing full-time duties.'' The appropriate nature of the recommended proviso is underscored by a baseball analogy where the right fielder and the center fielder change positions. They both continue to play on the same team and make substantial contributions, but the strain on the new right fielder is less because he doesn't have as much ground to cover (Ex. 15: 406).

The National Association of Manufacturers (NAM) summed up its views as follows:

[a] preventive or prophylactic measure such as medical removal (as opposed to a restorative or curative measure) is not and should not be deemed medical treatment, a job transfer or restricted activity for purposes of recordability, in the absence of a substantial impairment of a bodily function (Ex. 25).

Although Organization Resource Counselors (ORC) generally endorsed the proposed approach to the treatment of restricted work cases, it did express concern about how medical removal cases would be treated under the proposed definition:

[t]he proposed definition of restricted work is a significant improvement over the current [former] one, which was considered by many employers to be unfair and confusing. It is no secret that many employers did not understand the current restricted work rules and, as a result, did not follow them consistently. Additionally, the [proposed] elimination of the count of restricted workdays is appropriate and is a recognition by OSHA that the recording of this count is of little value to either the Agency or employers in program evaluation or program development. * * * Additionally, requirements for the recording of either voluntary or mandatory medical removals where no additional symptoms are present are examples of appropriate action taken by employers to prevent harm to employees and not of a recordable injury or illness. * * *'' (Ex. 15: 358).

Final Rule's Restricted Work and Job Transfer Provisions, and OSHA's Reasons for Adopting Them

Paragraph 1904.7(b)(4) contains the restricted work and job transfer provisions of the final rule. These provisions clarify the definition of restricted work in light of the comments received and continue, with a few exceptions, most of the former rule's requirements with regard to these kinds of cases. OSHA finds, based on a review of the record, that these provisions of the final rule will increase awareness among employers of the importance of recording restricted work activity and job transfer cases and make the recordkeeping system more accurate and the process more efficient.

OSHA believes that it is even more important today than formerly that the definition of restricted work included in the final rule be clear and widely understood, because employers have recently been relying on restricted work (or ''light duty'') with increasing frequency, largely in an effort to encourage injured or ill employees to return to work as soon as possible. According to BLS data, this category of cases has grown by nearly 70% in the last six years. In 1992, for example, 9% of all injuries and illnesses (or a total of 622,300 cases) recorded as lost workday cases were classified in this way solely because of restricted work days, while in 1998, nearly 18% of all injury and illness cases (or a total of 1,050,200 cases) were recorded as lost workday cases only because they involved restricted work [BLS Press Release 99–358, 12–16–99). The return-to-work programs increasingly being relied on by employers (often at the recommendation of their workers' compensation insurers) are designed to prevent exacerbation of, or to allow recuperation from, the injury or illness, rehabilitate employees more effectively, reintegrate injured or ill workers into the workplace more rapidly, limit workers' compensation costs, and retain productive workers. In addition, many employees are eager to accept restricted work when it is available and prefer returning to work to recuperating at home.

The final rule's requirements in paragraph 1904.10(b)(4) of the final rule state:

(4) How do I record a work-related injury or illness that involves restricted work or job transfer?

When an injury or illness involves restricted work or job transfer but does not involve death or days away from work, you must record the injury or illness on the OSHA 300 Log by placing a check mark in the space for job transfer or restricted work and entering the number of restricted or transferred days in the restricted work column.

(i) How do I decide if the injury or illness resulted in restricted work?

Restricted work occurs when, as the result of a work-related injury or illness:

(A) You keep the employee from performing one or more of the routine functions of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work; or

(B) A physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled to work.

(ii) What is meant by ''routine functions''?

For recordkeeping purposes, an employee's routine functions are those work activities the employee regularly performs at least once per week.

(iii) Do I have to record restricted work or job transfer if it applies only to the day on which the injury occurred or the illness began?

No. You do not have to record restricted work or job transfers if you, or the physician or other licensed health care professional, impose the restriction or transfer only for the day on which the injury occurred or the illness began.

(iv) If you or a physician or other licensed health care professional recommends a work restriction, is the injury or illness automatically recordable as a ''restricted work'' case?

No. A recommended work restriction is recordable only if it affects one or more of the employee's routine job functions. To determine whether this is the case, you must evaluate the restriction in light of the routine functions of the injured or ill employee's job. If the restriction from you or the physician or other licensed health care professional keeps the employee from performing one or more of his or her routine job functions, or from working the full workday the injured or ill employee would otherwise have worked, the employee's work has been restricted and you must record the case.

(v) How do I record a case where the worker works only for a partial work shift because of a work-related injury or illness?

A partial day of work is recorded as a day of job transfer or restriction for recordkeeping purposes, except for the day on which the injury occurred or the illness began.

(vi) If the injured or ill worker produces fewer goods or services than he or she would have produced prior to the injury or illness but otherwise performs all of the activities of his or her work, is the case considered a restricted work case?

No. The case is considered restricted work only if the worker does not perform all of the

routine functions of his or her job or does not work the full shift that he or she would otherwise have worked.

(vii) How do I handle vague restrictions from a physician or other licensed health care professional, such as that the employee engage only in ''light duty'' or ''take it easy for a week''?

If you are not clear about a physician or other licensed health care professional's recommendation, you may ask that person whether the employee can perform all of his or her routine job functions and work all of his or her normally assigned work shift. If the answer to both of these questions is ''Yes,'' then the case does not involve a work restriction and does not have to be recorded as such. If the answer to one or both of these questions is ''No,'' the case involves restricted work and must be recorded as a restricted work case. If you are unable to obtain this additional information from the physician or other licensed health care professional who recommended the restriction, record the injury or illness as a case involving job transfer or restricted work.

(viii) What do I do if a physician or other licensed health care professional recommends a job restriction meeting OSHA's definition but the employee does all of his or her routine job functions anyway?

You must record the injury or illness on the OSHA 300 Log as a restricted work case. If a physician or other licensed health care professional recommends a job restriction, you should ensure that the employee complies with that restriction. If you receive recommendations from two or more physicians or other licensed health care providers, you may make a decision as to which recommendation is the most authoritative, and record the case based upon that recommendation.

The concept of restricted work activity in the final rule falls somewhere between the commenters' broadest and narrowest definitions of the work activities that should be considered in determining whether a particular case involves work restriction. The final rule's concept of restricted work is based both on the type of work activities the injured or ill worker is able to perform and the length of time the employee is able to perform these activities. The term ''routine functions of the job'' in paragraphs 1904.7(b)(4)(i) and (b)(4)(ii) clarifies that OSHA considers an employee who is unable, because of a work-related injury or illness, to perform the job activities he or she usually performs to be restricted in the work he or she may perform. Use of the term ''routine functions of the job'' should eliminate the concern of some commenters who read the proposed definition as meaning that an employee had to be able to perform every possible work activity, including those that are highly unusual or performed only very rarely, in order for the employer to avoid recording the case as a restricted work case (see, *e.g.*, Exs. 15: 80, 247). In other words, OSHA agrees that it makes little sense to consider an employee who is prevented by an injury or illness from performing a particular job function he or she never or rarely performed to be restricted (see, *e.g.*, Exs. 15: 80, 247). For example, OSHA finds that, for the purposes of recordkeeping, an activity that is performed only once per month is not performed ''regularly.'' This approach is consistent with OSHA interpretations under the former rule. Limiting the definition to ''essential functions,'' the ADA term recommended by several commenters (see, *e.g.*, Exs. 15: 127, 136, 137, 141, 224, 266, 278, 431), would be inappropriate, because OSHA needs information on all restricted work cases, not just those that interfere with the essential functions of the job (29 U.S.C. 657(c)(2)).

On the other hand, OSHA agrees with those commenters who argued that the proposed definition, to limit the definition of restricted activity to the specific functions or tasks the employee was engaged in on the day of injury or onset of illness would be unsatisfactory, because doing so could fail to capture activities that an employee regularly performs (see, *e.g.*, Exs. 20; 15: 17, 129, 380, 418). In the final rule, OSHA has decided that defining restricted work as work that an employee would regularly have performed at least once per week is appropriate, i.e., OSHA believes that the range of activities captured by this interval of time will generally reflect the range of an employee's usual work activities. Activities performed less frequently than once per week reflect more uncommon work activities that are not considered routine duties for the purposes of this rule. However, the final rule does not rely on the duties the employee actually performed during the week when he or she was injured or became ill. Thus, even if an employee did not perform the activity within the last week, but usually performs the activity once a week, the activity will be included. OSHA believes that this change in definition will foster greater acceptance of the concept of restricted work among employers and employees because of its common sense approach.

Use of the term ''partial work shift'' in paragraph 1904.7(b)(4)(v) covers restrictions on the amount of time an employee is permitted to work because of the injury or illness. This interpretation of restricted work was not generally disputed by commenters, although some argued that the restriction on the hours worked should last for a specific number of days before the case becomes recordable as a restricted work case (see, *e.g.*, Exs. 15: 19, 44, 146, 154, 156, 198, 364, 374, 391).

The final rule's restricted work provisions also clarify that work restriction must be imposed by the employer or be recommended by a health care professional before the case is recordable. Only the employer has the ultimate authority to restrict an employee's work, so the definition is clear that, although a health care professional may recommend the restriction, the employer makes the final determination of whether or not the health care professional's recommended restriction involves the employee's routine functions. Restricted work assignments may involve several steps: an HCP's recommendation, or employer's determination to restrict the employee's work, the employers analysis of jobs to determine whether a suitable job is available, and assignment of the employee to that job. All such restricted work cases are recordable, even if the health care professional allows some discretion in defining the type or duration of the restriction, an occurrence noted by one commenter (Ex. 15:442). However, the final rule's provisions make it clear that the employee is not the person making the determination about being placed on restricted work, as one commenter (Ex. 15: 97) feared.

A number of commenters suggested that OSHA cease to require the recording of restricted work cases entirely (see, *e.g.*, Exs. 15: 119, 427). However, the Congress has directed that the recordkeeping system capture data on non-minor work-related injuries and illnesses and specifically on restricted work cases, both so that the national statistics on such injuries and illnesses will be complete and so that links between the causes and contributing factors to such injuries and illnesses will be identified (29 U.S.C. 651(b)). Days away and restricted work/job transfer cases together constitute two of the most important kinds of job-related injuries and illnesses, and it would be inappropriate not to record these serious cases. OSHA also cannot narrow the definition of restricted work to those cases where the employee is at work but cannot do productive work, as several commenters suggested (see, *e.g.*, Exs. 15: 9, 45, 46, 89, 437), because the Congress clearly intended that workers whose work-related injuries and illnesses were so severe as to prevent them from doing their former work or from working for a full shift had experienced an injury or illness that was non-minor and thus worthy of being recorded. OSHA does not believe that requiring employers to record such injuries and illnesses as

restricted work cases will in any way discourage the use of restricted work or return-to-work programs, and the marked shift in the number of restricted work cases reported to the BLS in the last few years bears this out. It would also not be appropriate for OSHA to require that employers only record as restricted work cases those cases in which the injured or ill worker requires medical treatment *and* is placed on restricted work, as some commenters suggested (see, *e.g.*, Exs. 15: 9, 348). The OSH Act clearly requires the recording of all work-related cases that require either medical treatment or restricted work.

Under the final rule, employers are not required to record a case as a restricted work case if the restriction is imposed on the employee only for the day of the injury or onset of illness. OSHA thus agrees with a number of commenters (see, *e.g.*, Exs. 15: 19, 44, 146, 154, 156, 198, 364, 374, 391) that restricted activity only on the day the injury occurred or the illness began does not justify recording. This represents a change in the treatment of restricted work cases from OSHA's practice under the former rule. OSHA has made this change to bring the recording of restricted work cases into line with that for days away cases: under the final rule, employers are not required to record as days away or restricted work cases those injuries and illnesses that result in time away or time on restriction or job transfer lasting only for the day of injury of illness onset.

Several commenters recommended that cases involving medical removal under the lead or cadmium standards or cases involving ''voluntary'' preventive actions, such as cases involving job transfer or restricted work activity, not be considered recordable under the final rule; these participants argued that requiring employers to record voluntary transfers or removals would create a disincentive for employers to take these protective actions (see, *e.g.*, Exs. 25, 15: 69, 156, 358, 406). Under the final rule (see section 1904.9), mandated removals made in accordance with an OSHA health standard must be recorded either as days away from work or as days of restricted work activity, depending on the specific action an employer takes. Since these actions are mandated, no disincentive to record is created by this recordkeeping rule.

Some commenters, however, urged OSHA to make an exception from the recording requirements for cases where the employer voluntarily, or for preventive purposes, temporarily transfers an employee to another job or restricts an employee's work activities. OSHA does not believe that this concept is relevant to the recordkeeping rule, for the following reasons. Transfers or restrictions taken *before* the employee has experienced an injury or illness do not meet the first recording requirement of the recordkeeping rule, i.e., that a work-related injury or illness must have occurred for recording to be considered at all. A truly preventive medical treatment, for example, would be a tetanus vaccination administered routinely to an outdoor worker. However, transfers or restrictions whose purpose is to allow an employee to recover from an injury or illness as well as to keep the injury or illness from becoming worse are recordable because they involve restriction or work transfer caused by the injury or illness. All restricted work cases and job transfer cases that result from an injury or illness that is work-related are recordable on the employer's Log.

As the regulatory text for paragraph (b)(4) makes clear, the final rule's requirements for the recording of restricted work cases are similar in many ways to those pertaining to restricted work under the former rule. First, like the former rule, the final rule only requires employers to record as restricted work cases those cases in which restrictions are imposed or recommended as a result of a work-related injury or illness. A work restriction that is made for another reason, such as to meet reduced production demands, is not a recordable restricted work case. For example, an employer might ''restrict'' employees from entering the area in which a toxic chemical spill has occurred or make an accommodation for an employee who is disabled as a result of a non-work-related injury or illness. These cases would not be recordable as restricted work cases because they are not associated with a work-related injury or illness. However, if an employee has a work-related injury or illness, and that employee's work is restricted by the employer to prevent exacerbation of, or to allow recuperation from, that injury or illness, the case is recordable as a restricted work case because the restriction was necessitated by the work-related injury or illness. In some cases, there may be more than one reason for imposing or recommending a work restriction, *e.g.*, to prevent an injury or illness from becoming worse or to prevent entry into a contaminated area. In such cases, if the employee's work-related illness or injury played *any* role in the restriction, OSHA considers the case to be a restricted work case.

Second, for the definition of restricted work to apply, the work restriction must be decided on by the employer, based on his or her best judgment or on the recommendation of a physician or other licensed health care professional. If a work restriction is not followed or implemented by the employee, the injury or illness must nevertheless be recorded on the Log as a restricted case. This was also the case under the former rule.

Third, like the former rule, the final rule's definition of restricted work relies on two components: whether the employee is able to perform the duties of his or her pre-injury job, and whether the employee is able to perform those duties for the same period of time as before.

The principal differences between the final and former rules' concept of restricted work cases are these: (1) the final rule permits employers to cap the total number of restricted work days for a particular case at 180 days, while the former rule required all restricted days for a given case to be recorded; (2) the final rule does not require employers to count the restriction of an employee's duties on the day the injury occurred or the illness began as restricted work, providing that the day the incident occurred is the only day on which work is restricted; and (3) the final rule defines work as restricted if the injured or ill employee is restricted from performing any job activity the employee would have regularly performed at least once per week before the injury or illness, while the former rule counted work as restricted if the employee was restricted in performing any activity he or she would have performed at least once per year.

In all other respects, the final rule continues to treat restricted work and job transfer cases in the same manner as they were treated under the former rule, including the counting of restricted days. Paragraph 1904.7(b)(4)(xi) requires the employer to count restricted days using the same rules as those for counting days away from work, using § 1904.7(b)(3)(i) to (viii), with one exception. Like the former rule, the final rule allows the employer to stop counting restricted days if the employee's job has been permanently modified in a manner that eliminates the routine functions the employee has been restricted from performing. Examples of permanent modifications would include reassigning an employee with a respiratory allergy to a job where such allergens are not present, or adding a mechanical assist to a job that formerly required manual lifting. To make it clear that employers may stop

counting restricted days when a job has been permanently changed, but not to eliminate the count of restricted work altogether, the rule makes it clear that at least one restricted workday must be counted, even if the restriction is imposed immediately. A discussion of the desirability of counting days of restricted work and job transfer at all is included in the explanation for the OSHA 300 form and the § 1904.29 requirements. The revisions to this category of cases that have been made in the final rule reflect the views of commenters, suggestions made by the Keystone report (Ex. 5), and OSHA's experience in enforcing the former recordkeeping rule.

Paragraph 1904.7(b)(5) Medical Treatment Beyond First Aid

The definitions of first aid and medical treatment have been central to the OSHA recordkeeping scheme since 1971, when the Agency's first recordkeeping rule was issued. Sections 8(c)(2) and 24(a) of the OSH Act specifically require employers to record all injuries and illnesses other than those ''requiring only first aid treatment and which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.'' Many injuries and illnesses sustained at work do not result in death, loss of consciousness, days away from work or restricted work or job transfer. Accordingly, the first aid and medical treatment criteria may be the criteria most frequently evaluated by employers when deciding whether a given work-related injury must be recorded.

In the past, OSHA has not interpreted the distinction made by the Act between minor (i.e., first aid only) injuries and non-minor injuries as applying to occupational illnesses, and employers have therefore been required to record all occupational illnesses, regardless of severity. As a result of this final rule, OSHA will now apply the same recordability criteria to both injuries and illnesses (see the discussion of this issue in the Legal Authority section of this preamble). The Agency believes that doing so will simplify the decision-making process that employers carry out when determining which work-related injuries and illnesses to record and will also result in more complete data on occupational illness, because employers will know that they must record these cases when they result in medical treatment beyond first aid, regardless of whether or not a physician or other licensed health care professional has made a diagnosis.

The former recordkeeping rule defined first aid as ''any one-time treatment and any follow-up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care.'' Medical treatment was formerly defined as ''treatment administered by a physician or by registered professional personnel under the standing orders of a physician.''

To help employers determine the recordability of a given injury, the *Recordkeeping Guidelines,* issued by the Bureau of Labor Statistics (BLS) in 1986, provided numerous examples of medical treatments and of first aid treatments (Ex. 2). These examples were published as mutually exclusive lists, i.e., a treatment listed as a medical treatment did not also appear on the first-aid list. Thus, for example, a positive x-ray diagnosis (fractures, broken bones, etc.) was included among the treatments generally considered medical treatment, while a negative x-ray diagnosis (showing no fractures) was generally considered first aid. Despite the guidance provided by the *Guidelines,* OSHA continued to receive requests from employers for interpretations of the recordability of specific cases, and a large number of letters of interpretation addressing the distinction between first aid and medical treatment have been issued. The following sections discuss the definitions of medical treatment and first aid proposed by OSHA, the comments received in response to the proposal, and the definition of medical treatment that OSHA has decided to include in the final rule.

In the proposed rule, OSHA presented a simplified approach: to define as first aid anything on a list of first aid treatments, and to define as medical treatment any treatment not on that list. Specifically, medical treatment was defined as ''any medical cure or treatment beyond first aid'' (61 FR 4059).

The proposal contained a comprehensive list of all treatments that would be considered ''first aid'' regardless of the provider:

(1) Visit(s) to a health care provider limited to observation

(2) Diagnostic procedures, including the use of prescription medications solely for diagnostic purposes (*e.g.* eye drops to dilate pupils)

(3) Use of nonprescription medications, including antiseptics

(4) Simple administration of oxygen

(5) Administration of tetanus or diphtheria shot(s) or booster(s)

(6) Cleaning, flushing or soaking wounds on skin surface

(7) Use of wound coverings such as bandages, gauze pads, etc.

(8) Use of any hot/cold therapy (*e.g.* compresses, soaking, whirlpools, non-prescription skin creams/lotions for local relief, etc.) except for musculoskeletal disorders (see Mandatory Appendix B to Part 1904)

(9) Use of any totally non-rigid, non-immobilizing means of support (*e.g.* elastic bandages)

(10) Drilling of a nail to relieve pressure for subungual hematoma

(11) Use of eye patches

(12) Removal of foreign bodies not embedded in the eye if only irrigation or removal with a cotton swab is required

(13) Removal of splinters or foreign material from areas other than the eyes by irrigation, tweezers, cotton swabs or other simple means (61 FR 4059)

OSHA also solicited comment on three specific definitional questions:

(A) Should any treatments on the proposed first aid list be excluded and should any treatments be added?

(B) Should a list of medical treatments also be provided? Which treatments?

(C) Should simple administration of oxygen be defined to exclude more severe procedures such as Intermittent Positive Pressure Breathing (IPPB)? If so, how?

OSHA received many comments on the general approach taken in the proposal, i.e., that employers rely on a comprehensive list of first aid treatment and define any treatment not on that list as medical treatment. The Agency also received many comments on the individual items on the proposed first aid list. The following discussion addresses comments on the general approach adopted in the final rule and then deals with comments on specific items and OSHA's responses to each issue.

A large number of commenters agreed with OSHA's proposal to rely on a finite list of treatments considered first aid and to consider all other treatments medical treatment (see, *e.g.*, Exs. 15: 9, 13, 26, 27, 74, 76, 87, 95, 122, 127, 156, 163, 185, 188, 199, 204, 218, 242, 263, 269, 270, 283, 297, 324, 332, 338, 347, 357, 359, 377, 378, 385, 386, 387, 395, 397, 405, 407, 414, 434). Several commenters wanted no change to the proposal (see, *e.g.*, Exs. 15: 26, 76, 204, 385, 378), while others agreed with the general approach but stated that the first aid list should be more comprehensive (see, *e.g.*, Exs. 15: 199, 332, 338, 357, 386, 387).

Commenters supported the proposed approach for a variety of reasons. For example, some stated that a finite list

would improve the clarity of the definition, reduce confusion for employers, and reduce inaccuracy in the data (see, *e.g.*, Exs. 15: 87, 95, 122, 127, 163, 185, 188, 395, 338, 242, 270, 269, 263, 347, 377, 386). The statement of the American Iron and Steel Institute exemplified these comments:

> Consistent with its statutory mandate, OSHA's proposal would also require the recording of all work-related injuries and illnesses that result in medical treatment beyond first aid. The expanded and finite list of treatments that constitute first aid would clarify the task of deciding what to record, because any treatment that does not appear on this list will be considered a medical treatment. (Ex. 15: 395)

The Ford Motor Company agreed, stating:

> Ford supports that the definition of first aid be modified to consist of a comprehensive list of treatments. Treatments not found on the first aid list would be considered medical treatment for recordkeeping purposes. Assuming that the list will be comprehensive, it will reduce confusion, lead to consistent recordkeeping, and greatly simplify the decision making process (Ex. 15: 347).

Some commenters stated that the proposed approach would be simpler for employers, generate more consistent records, and facilitate better comparisons of injury and illness data over time (see, *e.g.*, Exs. 15: 13, 122, 127, 242, 270, 269, 263, 283, 297, 347, 359, 377, 405, 407). According to the Southern Nuclear Operating Company: ''Providing a comprehensive list of all first-aid treatments will remove the current ambiguity in deciding if a case involves first aid only or if it is medical treatment. This should provide more consistent recordkeeping and allow for more meaningful comparisons of accident histories'' (Ex. 15: 242, p. 2).

A number of commenters, however, disagreed that defining first aid by listing first aid treatments was appropriate (see, *e.g.*, Exs. 15: 18, 63, 83, 87, 96, 119, 123, 129, 145, 159, 171, 173, 176, 182, 201, 225, 229, 247, 260, 262, 265, 272, 281, 303, 307, 308, 335, 337, 338, 341, 348, 349, 357, 364, 375, 380, 382, 389, 396, 401, 413, 418, 430, 434). Several of these commenters argued that it would not be possible to list every first aid treatment (see, *e.g.*, Exs. 15: 225, 335, 337, 396, 430). Some commenters stated that the proposed approach would not provide sufficient clarity, would involve a definition of medical treatment that was overly vague, and would not be helpful to employers without additional definitions (see, *e.g.*, Exs. 15: 159, 171, 176, 229, 281, 348, 357, 396). Another group of commenters stated that the approach did not provide flexibility to adapt to changing medical practice, and would not be capable of responding to changes in technology (see, *e.g.*, Exs. 15: 18, 63, 96, 335, 348). The comments of the Dow Chemical Corporation are representative of these views:

> Dow believes that OSHA should provide non-exhaustive lists for both first aid and medical treatment, rather than defining one solely by the exclusion of the other. Dow believes this suggested approach is necessary to take into account that these lists cannot be comprehensive or all-inclusive as it is impossible to list every possible contingency. Moreover, technology is constantly changing and cannot be accounted for in a static list. For example, one can now obtain Steri-Strips over the counter where previously it would have been considered ''medical treatment.'' Since exhaustive lists do not allow the flexibility to take these technologies into account nor capture every possible situation, much would still be left to supposition. By providing an illustrative list for both first aid and medical treatment, OSHA would be giving adequate guidance for the regulated community. Dow recommends OSHA make this modification in the final rule. (Ex. 15: 335)

A number of commenters urged OSHA to use the definition of medical treatment as a way to focus primarily on the seriousness of the injury or illness (see, *e.g.*, Exs. 15: 147, 201, 308, 341, 375, 395, 418). For example, the American Petroleum Institute remarked ''* * * the fundamental issue is the seriousness of the injury or illness, not the treatment'' (Ex. 375–A, p. 7). The Caterpillar Corporation provided lengthy comments on the definition of medical treatment, including the following criticism of the proposed approach:

> Insignificant injuries for which medical treatment is provided do not provide valuable information for safety and health analysis. This proposal attempts to oversimplify the recordkeeping process which will result in many insignificant injuries and illnesses being recorded because of the unnecessarily restrictive definitions for first aid and medical treatment. The definition and listing of first aid cannot be a comprehensive or exclusive listing and definition. Medical treatment may be provided for insignificant injuries and significant injuries may receive little or no medical treatment. The medical treatment process and options are too complicated to be adequately described by one list which makes the treatments mutually exclusive. OSHA should continue the current practice with lists for both first aid and medical treatment. Further, the treatments cannot be mutually exclusive since treatment does not necessarily recognize the severity of the injury or illness (Ex. 15: 201, p. 4).

Some commenters who disagreed with the proposed approach provided suggestions and alternative definitions. A number of commenters suggested that OSHA keep its former definitions of first aid and medical treatment (see, *e.g.*, Exs. 15: 83, 119, 123, 129, 145, 225, 337, 380, 389, 418, 430). Several commenters urged OSHA to update the former rule's definitions using the proposed rule's listing of first aid treatments (see, *e.g.*, Exs. 15: 83, 380, 418). Other commenters urged OSHA not to change the definition in any way because it would produce a break in the historical series of occupational injury and illness data (see, *e.g.*, Exs. 15: 123, 145, 389).

Several commenters made suggestions that they believed would introduce flexibility into the proposed rule's first aid definition. The National Restaurant Association suggested that OSHA add a ''catchall'' category to the list to include ''any similar type of treatment'' (Ex. 15: 96, p. 5). The General Electric Company urged that the following language be added: ''Other treatments may be considered first aid so long as they are recognized as first aid actions and [are] not listed in the definition of medical treatment'' (Ex. 15: 349, p. 8). Some commenters suggested allowing the health care professional to determine whether the activity was properly classified as first aid or medical treatment (see, *e.g.*, Exs. 27; 15: 131, 173, 176, 201, 334, 382, 392, 434). A typical comment along these lines was one from the American Forest and Paper Association, which stated that ''* * * we believe a qualified health care professional should have the authority to determine what is properly characterized as first aid and what should be properly characterized as medical treatment'' (Ex. 15:334, p. 7). Two commenters suggested that the health care professional be allowed to decide whether an action constituted first aid or medical treatment only if the treatment was not on either the first aid or medical treatment lists (see, *e.g.*, Exs. 27; 15: 382, 392, 434).

One commenter, the American Network of Community Options and Resources, supported the development of a finite first aid list, but suggested that OSHA define medical treatment as ''any treatment that requires professional medical intervention'' (Ex. 15: 393, p. 8).

A number of commenters agreed with OSHA that the first aid definition should focus on the type of treatment given, and not on the provider (see, *e.g.*, Exs. 15: 185, 308, 338, 349, 364, 443). Other comments argued that a distinction between first aid and medical treatment could be made on the basis of the number of times a particular treatment had been given. The AFL–CIO expressed a concern that, absent some

consideration of the number of times a treatment was administered, many serious injuries and illnesses would no longer be recordable and valuable data would be lost. The AFL–CIO stated that longer term treatments are more likely than shorter ones to be indicative of medical treatment:

> The proposed change in definition would seem to exclude cases where there are continued instances of the listed first aid treatments from the recordkeeping requirements. Those conditions which require continued treatments, including continued use of non-prescription drugs and repeated cleaning, flushing or soaking of wounds would no longer be recordable. The AFL–CIO believes that first aid should be limited to one time treatments as is the current practice, so that serious conditions which require multiple treatments are recorded on the log. We strongly urge OSHA to maintain the definition of first aid in the current recordkeeping guidelines and to use the listed conditions as examples of first aid. (Ex. 15: 418).

Similarly, the TIMEC group of companies believed that any one-time treatment should be considered first aid, saying:

> It is also TIMEC's perspective that the exclusion of a ''one time medical treatment'' provision from the list of first aids is unduly restrictive. Any condition that can be resolved or treated in one visit to the doctor should be considered minimal or negligible in the context of record keeping for industrial injuries. Under the proposed regulation, a condition that results in a one time medical treatment theoretically could be given the same weight, in terms of OSHA recordability, as a broken or severed limb. This seems unduly restrictive. Further, it may inhibit some employers from taking injured employees to the doctor in the first instance, in order to avoid a ''OSHA recordable injury.'' An employer may otherwise hope that the matter will heal itself without infection. This seems contrary to the goal of the Occupational Safety and Health Act, to ensure appropriate and prompt medical treatment and safety services to employees (Ex. 15: 18, p. 2).

In response to these comments and the evidence in the record of this rulemaking, the final rule essentially continues the proposed approach, i.e., it includes a list of first-aid treatments that is inclusive, and defines as medical treatment any treatment not on that list. OSHA recognizes, as several commenters pointed out, that no one can predict how medical care will change in the future. However, using a finite list of first aid treatments—knowing that it may have to be amended later based on new information—helps to limit the need for individual judgment about what constitutes first aid treatment. If OSHA adopted a more open-ended definition or one that relied on the judgment of a health care professional, employers and health care professionals would inevitably interpret different cases differently, which would compromise the consistency of the data. Under the system adopted in the final rule, once the employer has decided that a particular response to a work-related illness or injury is in fact treatment, he or she can simply turn to the first aid list to determine, without elaborate analysis, whether the treatment is first aid and thus not recordable. OSHA finds that this simple approach, by providing clear, unambiguous guidance, will reduce confusion for employers and improve the accuracy and consistency of the data.

The need for clear and unambiguous guidance is also OSHA's reason for not considering treatments from the first aid list to be medical treatment if carried out for a lengthier time, as suggested by the AFL–CIO. If an injured or ill employee is given first-aid treatment, such as non-prescription medications (at non-prescription strength), hot or cold therapy, massage therapy, or some other treatment on the first aid list, the treatment should not be considered medical treatment for OSHA recordkeeping purposes, regardless of the length of time or number of applications used. This approach will ensure that the recordkeeping system excludes truly minor injuries and illnesses, and capture the more serious cases that require treatment beyond first aid.

In the final rule, OSHA has adopted the approach taken in the proposal, in a slightly modified form. Under the final rule, employers will be able to rely on a single list of 14 first aid treatments. These treatments will be considered first aid whether they are provided by a lay person or a licensed health care professional. However, the final rule includes the following definition of medical treatment; ''management and care of a patient for the purpose of combating disease or disorder;'' this definition excludes observation and counseling, diagnostic procedures, and the listed first aid items. OSHA believes that providing a definition of medical treatment for recordkeeping purposes will help employers who are uncertain about what constitutes medical treatment. OSHA will also provide examples of medical treatments covered by this definition in compliance assistance documents designed to help smaller businesses comply with the rule. The following discussion describes the definitions of first aid and medical treatment in the final rule and explains the Agency's reasons for including each item on the first aid list.

Final Rule

The final rule, at § 1904.7(b)(5)(i), defines medical treatment as the management and care of a patient for the purpose of combating disease or disorder. For the purposes of Part 1904, medical treatment does not include:

> (A) Visits to a physician or other licensed health care professional solely for observation or counseling;
> (B) The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (*e.g.*, eye drops to dilate pupils); or
> (C) ''first aid'' as defined in paragraph (b)(5)(ii) of this section.

The final rule, at paragraph (b)(5)(ii), defines first aid as follows:

> (A) Using a nonprescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes).
> (B) administering tetanus immunizations (other immunizations, such as hepatitis B vaccine or rabies vaccine, are considered medical treatment).
> (C) Cleaning, flushing or soaking wounds on the surface of the skin;
> (D) Using wound coverings, such as bandages, Band-Aids®, gauze pads, etc.; or using butterfly bandages or Steri-Strips® (other wound closing devices, such as sutures, staples, etc. are considered medical treatment);
> (E) Using hot or cold therapy;
> (F) Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
> (G) Using temporary immobilization devices while transporting an accident victim (*e.g.* splints, slings, neck collars, back boards, etc.)
> (H) Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
> (I) Using eye patches;
> (J) Removing foreign bodies from the eye using only irrigation or a cotton swab;
> (K) Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs, or other simple means;
> (L) Using finger guards;
> (M) Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes);
> (N) Drinking fluids for relief of heat stress.

This list of first aid treatments is comprehensive, i.e., any treatment not included on this list is not considered

first aid for OSHA recordkeeping purposes. OSHA considers the listed treatments to be first aid regardless of the professional qualifications of the person providing the treatment; even when these treatments are provided by a physician, nurse, or other health care professional, they are considered first aid for recordkeeping purposes.

The definition of medical treatment in the final rule differs both from the definition used in the former rule (''treatment administered by a physician or by registered professional personnel under the standing orders of a physician'') and the proposed definition (''medical treatment includes any medical care or treatment beyond first aid''). The medical treatment definition in the final rule is taken from *Dorland's Illustrated Medical Dictionary,* and is thus consistent with usage in the medical community.

The three listed exclusions from the definition—visits to a health care professional solely for observation or counseling; diagnostic procedures, including prescribing or administering of prescription medications used solely for diagnostic purposes; and procedures defined in the final rule as first aid—clarify the applicability of the definition and are designed to help employers in their determinations of recordability.

OSHA received several comments on the proposed definition of medical treatment. These dealt primarily with the general approach OSHA was proposing, i.e., the use of an all-inclusive list of first aid applications, and defining any treatment not on the list as medical treatment. The remaining comments (see, *e.g.*, Exs. 15: 87, 171, 173, 176, 182, 229, 247, 260, 262, 265, 272, 303, 307, 357, 338, 375, 382, 396, 401, 413) urged OSHA to develop an all-inclusive list of medical treatments, to provide examples of some medical treatments, or to provide a non-mandatory appendix with such examples.

OSHA has not adopted the suggestions made by these commenters because the Agency finds that simplicity and clarity are best served by adopting a single, all-inclusive first aid list and explicitly stating that any treatment not on the list is considered, for recordkeeping purposes, to be medical treatment. Employers will thus be clear that any condition that is treated, or that should have been treated, with a treatment not on the first aid list is a recordable injury or illness for recordkeeping purposes.

This simplified approach addresses the concerns expressed by several commenters, who emphasized that the distinction between first aid and medical treatment made in the Act was meant to ensure that all occupational injuries and illnesses that were other than minor be captured by OSHA's recordkeeping system but that minor conditions not be recorded (see, *e.g.*, Exs. 15–308, 375A, p. 7). As the American Petroleum Institute commented (Ex. 375A), ''* * * the fundamental issue is the seriousness of the injury or illness, not the treatment.'' OSHA concludes, based on its review of the record, that the final rule's definitions of medical treatment and first aid will work together to achieve Congress's intent, as specified in sections 8 and 24 of the Act.

In making its decisions about the items to be included on the list of first aid treatments, OSHA relied on its experience with the former rule, the advice of the Agency's occupational medicine and occupational nursing staff, and a thorough review of the record comments. In general, first aid treatment can be distinguished from medical treatment as follows:

- First aid is usually administered after the injury or illness occurs and at the location (*e.g.*, workplace) where the injury or illness occurred.
- First aid generally consists of one-time or short-term treatment.
- First aid treatments are usually simple and require little or no technology.
- First aid can be administered by people with little training (beyond first aid training) and even by the injured or ill person.
- First aid is usually administered to keep the condition from worsening, while the injured or ill person is awaiting medical treatment.

The final rule's list of treatments considered first aid is based on the record of the rulemaking, OSHA's experience in implementing the recordkeeping rule since 1986, a review of the BLS *Recordkeeping Guidelines,* letters of interpretation, and the professional judgment of the Agency's occupational physicians and nurses.

Specific Items on the Proposed First Aid List in the NPRM

Item 1 listed in the NPRM definition of first aid was ''Visit(s) to a health care provider limited to observation.'' Two commenters raised the issue of counseling with regard to the recording of mental disorders (Exs. 15: 226, 395). The American Ambulance Association (AAA) stated that: ''This is and should be considered preventive treatment aimed at preventing stress-related illnesses. OSHA's adoption of such a policy will allow and encourage employers to provide CISD (critical incident stress debriefing) counseling'' (Ex. 15: 226, p. 3). The AAA recommended that OSHA add preventive counseling, such as critical incident stress debriefing, to the first aid listing.

OSHA agrees that counseling should not be considered medical treatment and has expressly excluded it from the definition of medical treatment. Counseling is often provided to large groups of workers who have been exposed to potentially traumatic events. Counseling may be provided on a short-term basis by either a licensed health care professional or an unlicensed person with limited training. OSHA believes that capturing cases where counseling was the only treatment provided do not rise to the level of recording; other counseling cases, where prescription medications, days away from work, or restricted work activity is involved, would be captured under those criteria.

The Brookhaven National Laboratory recommended that the first aid list include any return visit to evaluate diagnostic decisions (Ex. 15: 163). Caterpillar, Inc. suggested that visits for observation, testing or diagnosis of injuries should also be considered first aid (Ex. 15: 201). The Chemical Manufacturers Association and Marathon Oil Company encouraged OSHA to add visits to the hospital for observation to the first-aid list (Exs. 15: 308, 310)

OSHA generally agrees with these commenters. OSHA believes that visits to a health care professional for observation, testing, diagnosis, or to evaluate diagnostic decisions should be excluded from the definition of medical treatment in the final rule. Visits to a hospital, clinic, emergency room, physician's office or other facility for the purpose of seeking the advice of a health care professional do not themselves constitute treatment. OSHA believes that visits to a hospital for observation or counseling are not, of and by themselves, medical treatment. Accordingly, the final rule excludes these activities from the definition of medical treatment.

Item 2 listed in the NPRM definition of first aid was ''Diagnostic procedures, including the use of prescription medications solely for diagnostic purposes (*e.g.* eye drops to dilate pupils).'' Several commenters believed that diagnostic procedures such as x-rays and blood tests should not be considered medical treatment (see, *e.g.*, Exs. 15: 176, 301, 347, 349, 375, 443). For example, General Electric (GE) stated ''Diagnostic tests should not be considered medical treatment.

Considering a diagnostic test to be a recordable injury without consideration of the test results is illogical and will establish a disincentive to test. GE's position is that a definition of medical treatment should also be included in the proposed regulation. Proposed wording is as follows: ''Medical treatment'' includes any medical care or treatment beyond ''first aid'' and does not include diagnostic procedures.''

Two commenters opposed the exclusion of diagnostic procedures. The National Institute for Occupational Safety and Health (NIOSH) said ''the term diagnostic procedures'' in item #2 is too broad, and the example given is vague. These procedures should not be considered first aid'' (Ex. 15: 407, p. 17). The United Steelworkers of America stated '' * * * delete the use of prescription drugs for diagnostic purposes. This will be abused by the company'' (Ex. 15: 429).

OSHA disagrees with NIOSH that the exclusion for diagnostic procedures is overly vague. It is the experience of the Agency that employers generally understand the difference between procedures used to combat an injury or illness and those used to diagnose or assess an injury or illness. In the event that the employer does not have this knowledge, he or she may contact the health care professional to obtain help with this decision. If the employer does not have this knowledge, and elects not to contact the health care professional, OSHA would expect the employer to refer to the first aid list and, if the procedure is not on the list, to presume that the procedure is medical treatment and record the case. OSHA also does not believe that this provision will be subject to abuse, because the procedures used for diagnosis are generally quite different from those involving treatment.

OSHA agrees with those commenters who recommended the exclusion of diagnostic procedures from the definition of medical treatment. Diagnostic procedures are used to determine whether or not an injury or illness exists, and do not encompass therapeutic treatment of the patient. OSHA has included such procedures on the first aid list in the final rule with two examples of diagnostic procedures to help reduce confusion about the types of procedures that are excluded.

Item 3 listed in the NPRM definition of first aid was ''Use of nonprescription medications, including antiseptics.'' This issue received a large number of comments, more than any other issue related to the proposed definition of medical treatment and first aid. Most of the comments requested that OSHA consider some uses of prescription drugs to be first aid treatment (see, *e.g.*, Exs. 15: 13, 60, 147, 159, 201, 218, 225, 246, 247, 297, 308, 332, 335, 336, 348, 349, 359, 374, 375, 386, 387, 395, 405, 414, 430, 434). The most common reason given by commenters for treating some prescription drugs as first aid was their use when they were given for preventive rather than therapeutic intervention. Several commenters asked for a broad exception from medical treatment for prescription drugs taken for preventive or prophylactic purposes (see, *e.g.*, Exs. 55X 15: 247, 336, 375, 395). For example, the American Iron and Steel Institute stated ''AISI encourages OSHA to make one change: add the use of prescription medications for prophylactic reasons to the first aid list. In many instances, a health care professional will prescribe antibiotics as a precaution against a possible infection. An employer should not be required to record a minor injury solely because a health care professional opted to respond aggressively'' (Exs. 15: 395; 55X).

Several commenters asked for an exception from the medical treatment for antibiotics and antiseptics (see, *e.g.*, Exs. 15: 218, 246, 332, 349, 375, 395, 414, 430). Raytheon Constructors, Inc. commented: ''We believe the following treatments should be added [to the first aid list]: Application of antiseptics, as often as needed. This is for prevention of infection after an injury. Infection is not caused by the work environment. Treatment for an infection, such as prescription drugs. Again, infection is not the result of the work environment'' (Ex. 15: 414).

A number of employers asked OSHA to define the use of prescription drugs for comfort, or to relieve pain or inflammation, as first aid (see, *e.g.*, Exs. 15: 60, 147, 201, 225, 247, 308, 348, 349). The American Gas Association stated that: we propose that 'prescription medications for comfort' be added to the list. Medical practitioners frequently ''prescribe drugs to comfort people after an injury'' (Ex. 15: 225), and the Proctor and Gamble Company stated ''[p]rescription medication to prevent complications or reduce pain should not be a sole basis for recording injuries and illnesses. It is our view that preventive measures or action taken to reduce pain should not in themselves be the basis for recording'' (Ex. 15: 147). Entergy Services Inc. suggested that OSHA include Benadryl shots as first aid since they are often given to prevent allergic reactions to insect bites and poison oak/ivy/sumac (Ex. 15: 13). The Arizona Public Service Company remarked: ''Treatment for bee stings should be addressed (perhaps listed on the First Aid list). For instance, if a doctor administers the same treatment that an employee could have administered themselves it should not be considered medical treatment'' (Ex. 15: 247).

Another set of comments suggested that prescription medications should be considered first aid if they were used only once or for a limited period of time. A number of comments requested that OSHA continue to treat a single dose of prescription medication as first aid. (see, *e.g.*, Exs. 15: 201, 332, 348, 349, 359, 374, 386, 387, 405, 430, 434). Typical of these comments was one from the National Safety Council:

> [t]hat administration of a single dose of prescription medication on first visit for minor injury or discomfort remain first aid. For example, minor muscle aches and pains may occasionally be eased with a single dose of 800 mg ibuprofen. This is currently considered first aid and should remain so. Another example would be the treatment of first degree burns. This is currently considered first aid treatment, even though treatment frequently involves the application of a single dose of prescription-strength ointment. (Ex.15: 359, p. 12)

Other commenters suggested that prescription medications used for 24 hours, 48 hours, or five days be considered first aid (see, *e.g.*, Exs. 15: 159, 246, 297, 308, 335, 375).

In the final rule, OSHA has not included prescription medications, whether given once or over a longer period of time, in the list of first aid treatments. The Agency believes that the use of prescription medications is not first aid because prescription medications are powerful substances that can only be prescribed by a licensed health care professional, and for the majority of medications in the majority of states, by a licensed physician. The availability of these substances is carefully controlled and limited because they must be prescribed and administered by a highly trained and knowledgeable professional, can have detrimental side effects, and should not be self-administered.

Some commenters asked whether a case where a prescription was written by a physician and given to the injured or ill employee but was not actually filled or taken would be recordable. In some instances the employee, for religious or other reasons, refuses to fill the prescription and take the medicine. In other cases, the prescriptions are issued on a ''take-as-needed'' basis. In these cases, the health care professional gives the patient a prescription, often for pain medication, and tells the patient to fill and take the prescription if he or she

needs pain relief. OSHA's long-standing policy has been that if a prescription of this type has been issued, medical treatment has been provided and the case must therefore be recorded. Numerous commenters asked OSHA to reverse or clarify its policy and consider these prescriptions to be first aid in the final rule (see, *e.g.*, Exs. 15: 13, 105, 247, 260, 262, 279, 281, 295, 300, 308, 359, 362, 386, 414). For example, the National Safety Council requested that ''OSHA should specify whether the treatment must actually be given or merely be appropriate or normal for the injury or illness. For example, is medical treatment given when a prescription is written or when it is filled or when it is taken by the employee'' (Ex. 15: 359).

OSHA has decided to retain its long-standing policy of requiring the recording of cases in which a health care professional issues a prescription, whether that prescription is filled or taken or not. The patient's acceptance or refusal of the treatment does not alter the fact that, in the health care professional's judgment, the case warrants medical treatment. In addition, a rule that relied on whether a prescription is filled or taken, rather than on whether the medicine was prescribed, would create administrative difficulties for employers, because such a rule would mean that the employer would have to investigate whether a given prescription had been filled or the medicine had actually been taken. Finally, many employers and employees might well consider an employer's inquiry about the filling of a prescription an invasion of the employee's privacy. For these reasons, the final rule continues OSHA's longstanding policy of considering the giving of a prescription medical treatment. It departs from former practice with regard to the administration of a single dose of a prescription medicine, however, because there is no medical reason for differentiating medical treatment from first aid on the basis of the number of doses involved. This is particularly well illustrated by the recent trend toward giving a single large dose of antibiotics instead of the more traditional pattern involving several smaller doses given over several days.

Yet another issue raised by commenters about medications involved the use of non-prescription medications at prescription strength. In recent years, many drugs have been made available both as prescription and ''over-the-counter'' medications, depending on the strength or dosage of the product. Some examples include various non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, and cortisone creams. OSHA's policy has been that if these drugs are used in the over-the-counter form they are first aid, but if they are used in prescription form, they are medical treatment. Some commenters stated that these drugs should always be considered first aid (see, *e.g.*, Exs. 15: 300, 308, 414). For example, Heritage Environmental Services, Inc. stated:

> While the proposed rule includes the use of non-prescription medications in the definition of first aid, it fails to address the use of prescription quantities of over-the-counter medications (i.e., Tylenol, Motrin). It has been Heritage's experience that the requirement of the current rule to record cases where physicians have prescribed over the counter medications has resulted in the inclusion of a broad range of minor cases, that in all other respects would not have been recordable. In working with occupational health care providers for many years, Heritage has found that frequently, physicians prescribe prescription quantities of over the counter medications for reasons other than the severity of the injury. Many physicians are unaware that the distribution of OTC medications in such a manner results in an OSHA recordable injury/illness.* * * Heritage strongly favors the inclusion of a statement within the definition of first aid that eliminates the need to record cases where the sole reason for the recording of the case is the administration of prescription quantities of over-the-counter medications. (Ex. 15: 300)

Other commenters stated that the use of nonprescription medications should be considered medical treatment if they are used at prescription strength (Ex. 15: 279) or that the continued use of non-prescription drugs, especially anti-inflammatory drugs, should be considered medical treatment (see, *e.g.*, Exs. 15: 362, 371, 380, 418). The Union of Needletrades, Industrial and Textile Employees (UNITE) stated that ''the self-administration of medication, when used on a recurring basis, should trigger the recording of cases'' (Ex. 15: 380), and the United Food and Commercial Workers Union, pointed out that ''When the employee reports pain that has lasted for over a week, they are given over-the-counter medication for as long as they ask. These cases, which can go on for a month or longer, are never recorded'' (Ex. 15: 371).

One commenter suggested that health care professionals might prescribe over-the-counter medications rather than prescription medications for economic reasons (Ex. 15: 279).

The final rule does not consider the prescribing of non-prescription medications, such as aspirin or over-the-counter skin creams, as medical treatment. However, if the drug is one that is available both in prescription and nonprescription strengths, such as ibuprofen, and is used or recommended for use by a physician or other licensed health care professional at prescription strength, the medical treatment criterion is met and the case must be recorded. There is no reason for one case to be recorded and another not to be recorded simply because one physician issued a prescription and another told the employee to use the same medication at prescription strength but to obtain it over the counter. Both cases received equal treatment and should be recorded equally. This relatively small change in the recordkeeping rule will improve the consistency and accuracy of the data on occupational injuries and illnesses and simplify the system as well.

Two commenters asked OSHA to add non-prescription ointments to item 3 on the first aid list (Exs. 15: 308, 443). The final rule simply lists non-prescription medications, and expects non-prescription medications to be included regardless of form. Therefore, non-prescription medicines at non-prescription strength, whether in ointment, cream, pill, liquid, spray, or any other form are considered first aid. OSHA has also removed antiseptics from the description of non-prescription medications. Following the same logic used for ointments, there is no need to list the variety of possible uses of non-prescription medications. Non-prescription medicines are first aid regardless of the way in which they are used.

Item 4 listed in the NPRM definition of first aid was ''Simple administration of oxygen.'' Some commenters agreed with OSHA's proposal to define the giving of oxygen as first aid (see, *e.g.*, Exs. 15: 34, 74, 78, 201, 281, 378, 414).

Several commenters, however, asked OSHA to provide more guidance as to what qualified as the ''simple'' administration of oxygen (see, *e.g.*, Exs. 15: 13, 170, 188, 229, 260, 262, 265, 272, 303, 374, 401, 405), while others suggested alternatives that would make some uses of oxygen first aid and other uses medical treatment. The American Petroleum Institute recommended: ''Simple oxygen administration is standard operating procedure for EMTs and should remain first aid. Oxygen therapy, if prescribed, should be considered medical treatment'' (15: 375). A group of utilities said ''Simple administration of oxygen should be defined to include the preventive aspects following an injury. This would include, for example, administration at the pre-hospital site or while in the emergency room or hospital for observation. Identifying oxygen administration in this manner would

eliminate the need to identify which of the more advanced uses of oxygen should be considered as medical treatment'' (see, *e.g.*, Exs. 15: 260, 262, 265, 401).

A number of commenters opposed the inclusion of oxygen as a first aid treatment (see, *e.g.*, Exs. 15: 9, 87, 156, 290, 350, 395, 415, 429). The American Red Cross stated:

> The simple administration of oxygen * * * is inappropriately considered first aid. Simple administration of oxygen is not so simple. If oxygen is administered to someone with chronic pulmonary disease (a medical condition not generally recognized by untrained individuals), the victim could die. Carbon dioxide build-up in the blood forces an individual with this condition to breathe; therefore, administration of oxygen would obstruct the involuntary breathing action, resulting in pulmonary arrest. Red Cross would argue that no administration of oxygen is ''simple'' (Ex. 15: 290).

The United Brotherhood of Carpenters Health & Safety Fund of North America (USC H&SF) remarked, ''[w]e urge that OSHA remove the simple administration of oxygen from first aid treatment. This procedure requires considerable training above what is recognized as First Aid by either the Red Cross's or National Safety Council's First Aid training courses'' (Ex. 15: 350). The Muscatine Iowa Chamber of Commerce Safety Committee added:

> We feel that oxygen administration, as a first aid treatment would extend beyond the intent of the standards. The training and equipment requirements for the delivery of oxygen are extensive and beyond the simple first aid kits. We believe that the delivery of even the most minimal amount of oxygen constitutes an advanced level of care to an employee. All oxygen administration should be considered as medical treatment, no matter how delivered or how much is used, for whatever the reason'' (Ex. 15: 87, p. 4).

OSHA is persuaded by the views of the Red Cross and others, which point to the potential complexities and consequences of the administration of oxygen. Accordingly, the Agency has decided to remove the use of oxygen from the first aid list and to consider any use of oxygen medical treatment. Oxygen administration is a treatment that can only be provided by trained medical personnel, uses relatively complex technology, and is used to treat serious injuries and illnesses. The use of any artificial respiration technology, such as Intermittent Positive Pressure Breathing (IPPB), would also clearly be considered medical treatment under the final rule.

Item 5 listed in the NPRM definition of first aid was ''administration of tetanus or diphtheria shot(s) or booster(s).'' These treatments have been considered first aid by OSHA for some time when they are administered routinely, *i.e.*, in the absence of an injury or illness (see the Recordkeeping Guidelines (Ex. 2, p. 43)). Several commenters expressed their support for continuing to include tetanus and diphtheria shots and boosters as first aid (see, *e.g.*, Exs. 15: 197, 201, 218, 247, 302, 308, 348, 385, 386, 393). Bell Atlantic commented that ''Bell Atlantic supports the proposed inclusion of tetanus/diphtheria shots on the first aid list. Such preventative actions should not be considered medical treatment'' (Ex. 15: 218). One commenter, Countrymark Cooperative, Inc., agreed that tetanus shots or boosters should be considered first aid, but did not believe diphtheria shots or boosters should be (Ex. 15: 9).

Two commenters recommended that tetanus and diphtheria shots be considered medical treatment, whether or not they are administered in connection with a work-related injury or illness. The American Red Cross stated, ''inappropriately considered * * * administration of diphtheria and tetanus shots or boosters cannot be performed without a prescription from a physician. The person administering the shots must also be cognizant of potential side effects, *i.e.*, anaphylactic shock, which can result from such an action, and be prepared to address them'' (Ex. 15: 290). The International Brotherhood of Teamsters added ''International Brotherhood of Teamsters encourages OSHA to discontinue tetanus and diphtheria booster shots as first aid. They should be considered medical treatment. They are usually administered both after exposure and before diagnosis. The International Brotherhood of Teamsters considers it similar to the prophylaxis medical treatment given after exposure to Hepatitis B Virus'' (Ex. 15: 369).

A number of commenters recommended the addition to the first aid list of other immunizations, including gamma globulin; vaccines for hepatitis B, hepatitis C, and rabies; or other prophylactic immunizations (see, *e.g.*, Exs. 15: 197, 201, 218, 302, 308, 347, 348, 386). Caterpillar, Inc. recommended, ''[c]learly exclude any immunizations and inoculations which are preventative in nature. Immunizations and inoculations are not usually provided in response to a specific injury or illness and should be excluded from OSHA records'' (Ex. 15: 201).

In the final rule, tetanus immunizations are included as item B on the first aid list. These immunizations are often administered to a worker routinely to maintain the required level of immunity to the tetanus bacillus. These immunizations are thus based not on the severity of the injury but on the length of time since the worker has last been immunized.

The issue of whether or not immunizations and inoculations are first aid or medical treatment is irrelevant for recordkeeping purposes unless a work-related injury or illness has occurred. Immunizations and inoculations that are provided for public health or other purposes, where there is no work-related injury or illness, are not first aid or medical treatment, and do not in themselves make the case recordable. However, when inoculations such as gamma globulin, rabies, etc. are given to treat a specific injury or illness, or in response to workplace exposure, medical treatment has been rendered and the case must be recorded. The following example illustrates the distinction OSHA is making about inoculations and immunizations: if a health care worker is given a hepatitis B shot when he or she is first hired, the action is considered first aid and the case would not be recordable; on the other hand, if the same health care worker has been occupationally exposed to a splash of potentially contaminated blood and a hepatitis B shot is administered as prophylaxis, the shot constitutes medical treatment and the case is recordable.

Item 6 listed in the NPRM definition of first aid was ''cleaning, flushing or soaking wounds on skin surface.'' OSHA received only one specific comment on this item. The American Federation of State, County, and Municipal Employees (AFSCME) commented: ''Cleaning, flushing or soaking wounds on skin surfaces. This is the initial treatment for needle stick injuries. AFSCME requests that OSHA clarify its position that cleaning, flushing or soaking of sharps injuries is considered a medical treatment'' (Ex. 15: 362).

The AFL–CIO disagreed with OSHA's proposed approach to skin surface wounds, based on the belief that valuable information about serious work-related injuries would be lost if the approach were adopted:

> The proposed change in definition would seem to exclude cases where there are continued instances of the listed first aid treatments from the recordkeeping requirements. Those conditions which require continued treatments, including continued use of non-prescription drugs and repeated cleaning, flushing or soaking of wounds would no longer be recordable. The AFL–CIO believes that first aid should be limited to one time treatments as is the

current practice, so that serious conditions which require multiple treatments are recorded on the log. We strongly urge OSHA to maintain the definition of first aid in the current recordkeeping guidelines and to use the listed conditions as examples of first aid (Ex. 15: 418).

OSHA believes that cleaning, flushing or soaking of wounds on the skin surface is the initial emergency treatment for almost all surface wounds and that these procedures do not rise to the level of medical treatment. This relatively simple type of treatment does not require technology, training, or even a visit to a health care professional. More serious wounds will be captured as recordable cases because they will meet other recording criteria, such as prescription medications, sutures, restricted work, or days away from work. Therefore, OSHA has included cleaning, flushing or soaking of wounds on the skin surface as an item on the first aid list. As stated previously, OSHA does not believe that multiple applications of first aid should constitute medical treatment; it is the nature of the treatment, not how many times it is applied, that determines whether it is first aid or medical treatment.

Item 7 listed in the NPRM definition of first aid was ''Use of wound coverings, such as bandages, gauze pads, etc.'' These treatments were considered first aid treatments by the *Recordkeeping Guidelines* (Ex. 2, p. 43). OSHA received no comments opposing the proposed definition of wound coverings as first aid. However, the issue of whether or not butterfly bandages and Steri-strips™ are first aid was raised. Steri-strips™ are a product of the 3M Company, which advertises them as a comfortable adhesive strip used to secure, close and support small cuts, wounds and surgical incisions. ''Butterfly bandages'' is a generic term used for similar adhesive strips designed for small wounds.

All of the commenters who raised the issue suggested that OSHA add Steri-strips and butterfly bandages to this first aid item (see, *e.g.*, Exs. 15: 45, 108, 163, 201, 247, 308, 332, 349, 387, 405). Some commenters believed that the use of Steri-strips™ and butterfly bandages should always be considered first aid (see, *e.g.*, Exs. 15: 45, 247, 332, 349, 387), while others believed they should be considered medical treatment only when used as a replacement for, or in lieu of, sutures (see, *e.g.*, Exs. 15: 108, 163, 201, 308, 405). The Westinghouse Electric Corporation stated, ''Steri-strips should be added to the list of first-aid treatments, when determined by the attending medical provider that the Steri-strip™ was not applied in lieu of sutures. Often medical care providers use a Steri-strip™ rather than a bandage, even though the injury does not require closure of any type'' (Ex. 15: 405).

These treatments were listed in the 1986 *Recordkeeping Guidelines* as medical treatment when applied ''in lieu of sutures'' (Ex. 2, p. 43). In the past, this provision in the *Guidelines* has been the subject of several letters of interpretation. For example, in a 1993 letter from Ms. Monica Verros, R.N., C.O.H.N, of the IBP company, Ms. Verros asked, ''[a]re all applications of butterfly adhesive dressing(s) and Steri-strip(s) considered medical treatment?'' OSHA's answer was simply ''yes'' (Ex. 70: 136).

OSHA agrees with the commenters who suggested that these devices be considered first aid treatment. They are included in item D of the first aid list. Steri strips and butterfly bandages are relatively simple and require little or no training to apply, and thus are appropriately considered first aid.

Two commenters also raised the issue of whether or not sutures or stitches should be considered first aid (Exs. 15: 229, 348). The National Pest Control Association (NPCA) stated:

NPCA believes cuts requiring five or less external stitches should also be categorized as first aid as well unless the employee has to go back to the medical provider because of the cut or there are more than five external stitches. Some of the examples the agency has included in its list of first aid, such as drilling of a nail to relieve pressure for subungual hematoma and removal of splinters or foreign material from areas other than eyes by irrigation, tweezers, cotton, swabs or other simple means, seems to be comparable to cuts requiring a minimal amount of stitches. Therefore, we believe it should be added to the list (Ex. 15: 229, p. 4).

The Dupont Company suggested: ''Expand the 'suture' category to say that any device used for closure for therapeutic reasons is an automatic MTC (medical treatment case). Leeway should be given for when a care provider gives 'unnecessary' treatment, for example, sutures for cosmetic reasons instead of for therapeutic closure, where the doctor provides the documentation'' (Ex. 15: 348).

OSHA believes that including sutures or stitches in the first aid list would not be appropriate. Performing these procedures requires substantial medical training, and they are used only for more serious wounds and are generally considered to go beyond first aid. OSHA has also decided not to provide exclusions for first aid items based on their purpose or intent. If the medical professional decides stitches or sutures are necessary and proper for the given injury, they are medical treatment.

Because OSHA has decided not to include a list of medical treatments in the final rule, there is no need to articulate that the use of other wound closing devices, such as surgical staples, tapes, glues or other means are medical treatment. Because they are not included on the first aid list, they are by definition medical treatment.

Item 8 listed in the proposed definition of first aid was ''[u]se of any hot/cold therapy (*e.g.* compresses, soaking, whirlpools, non prescription skin creams/lotions for local relief, etc.) except for musculoskeletal disorders'' (61 FR 4059). *The Recordkeeping Guidelines* defined heat therapy, hot or cold therapy compresses or soaking therapy, or whirlpool bath therapy on a second or subsequent visit to be medical treatment (Ex. 2, p. 43). OSHA has restated this guidance in numerous letters of interpretation, most of them related to the issue of the recording of musculoskeletal disorders (MSDs).

A number of commenters recommended that hot or cold therapy be defined as first aid regardless of the number of times it is administered or the type of condition for which it is used (see, *e.g.*, Exs. 15: 39, 45, 95, 109, 156, 163, 199, 201, 218, 246, 308, 347, 348, 359, 386, 414, 430, 443). Several of the comments cited consistency as an issue (see, *e.g.*, Exs. 15: 39, 109, 347, 348, 430). For example, the Dupont Company stated that ''Item 8 on the 'First Aid Treatment' list considers the same treatment as either first aid or medical treatment depending on the condition for which it is applied. The treatment is used for reduction of swelling and discomfort. The condition for which it is used should not matter. * * * Exclude the 'except for musculoskeletal disorders * * *' clause from item 8 (Ex. 15: 348, p. 9).

Another issue raised was that hot and cold treatments do not require special training (Ex. 15: 414). For example, Raytheon Constructors stated ''[w]e believe the following treatments should be added: Soaking, whirlpool and hot/cold therapy with no limit on the number of times. Many physicians choose this conservative treatment, plus, any first aid trained person and/or the injured person can do this'' (Ex. 15: 414). Other commenters stated that serious musculoskeletal disorders would be captured more consistently by other recording criteria (see, *e.g.*, Exs. 15: 199, 347). The Ford Motor Company stated:

> We have a major disagreement with the proposed rule that the use of any hot or cold therapy is first aid, except for musculoskeletal disorders. The use of hot or cold therapy should always be considered first aid. If an individual has a significant or serious musculoskeletal disorder, it would require prescription medicine, restriction of work or motion, transfer to another job, a day away from work, or medical treatment. Considering hot or cold therapy to always be first aid simplifies the system, reduces confusion, and does not discourage practitioners from using hot or cold therapy for minor or insignificant musculoskeletal disorders. If all musculoskeletal disorders which include two or more applications of hot or cold therapy as directed by a health care provider are recordable, the data on musculoskeletal disorders will be absolutely useless (Ex. 15: 347).

Several commenters believed that multiple hot or cold treatments should be considered medical treatment (see, *e.g.*, Exs. 15: 371, 418). The AFL–CIO disagreed with OSHA's proposal; it recommended that multiple treatments of all types be considered medical treatment, based on the belief that valuable information about serious work-related injuries would otherwise be lost. The AFL–CIO said:

> The proposed change in definition would seem to exclude cases where there are continued instances of the listed first aid treatments from the recordkeeping requirements. * * * The AFL–CIO believes that first aid should be limited to one time treatments as is the current practice, so that serious conditions which require multiple treatments are recorded on the log. We strongly urge OSHA to maintain the definition of first aid in the current recordkeeping guidelines and to use the listed conditions as examples of first aid (15: 418).

The Tosco Corporation proposed an alternative, recommending that hot/cold treatments for musculoskeletal disorders be considered first aid for the first four treatments (Ex. 15: 246).

In the final rule, OSHA has included hot and cold treatment as first aid treatment, regardless of the number of times it is applied, where it is applied, or the injury or illness to which it is applied. The Agency has decided that hot or cold therapy must be defined as either first aid or medical treatment regardless of the condition being treated, a decision that departs from the proposal. It is OSHA's judgment that hot and cold treatment is simple to apply, does not require special training, and is rarely used as the only treatment for any significant injury or illness. If the worker has sustained a significant injury or illness, the case almost always involves some other form of medical treatment (such as prescription drugs, physical therapy, or chiropractic treatment); restricted work; or days away from work. Therefore, there is no need to consider hot and cold therapy to be medical treatment, in and of itself. Considering hot and cold therapy to be first aid also clarifies and simplifies the rule, because it means that employers will not need to consider whether to record when an employee uses hot or cold therapy without the direction or guidance of a physician or other licensed health care professional.

Item 9 listed in the NPRM definition of first aid was ''[u]se of any totally non-rigid, non-immobilizing means of support (*e.g.* elastic bandages).'' The proposal reflected OSHA's guidance to employers under past interpretations. The *Recordkeeping Guidelines* defined first aid treatment as ''use of elastic bandage(s) during first visit to medical personnel'' (Ex. 2, p. 43). The *Guidelines* do not provide specific guidance on the use of other types of orthopedic devices such as splints, casts, or braces. In response to requests from the public to clarify the issue of which devices are medical treatment and which are first aid treatment, OSHA issued several letters of interpretation stating that the use of wraps or non-constraining devices such as wristlets, tennis elbow bands or elastic bandages are first aid treatment, regardless of how long or how often they are used. The use of casts, splints, or orthopedic devices designed to immobilize a body part to permit it to rest and recover is considered medical treatment. Generally, orthopedic devices used for immobilization are made rigid, in whole or in part, through the use of stays or non-bending supports (see, *e.g.*, Exs. 70: 40, 158).

OSHA received several comments recommending that it provide additional clarification of this issue (see, *e.g.*, Exs. 15: 176, 290). Several commenters suggested that OSHA include wrist splints as first aid, on the grounds that wrist splints are used as a prophylactic treatment (see, *e.g.*, Exs. 15: 332, 349, 386, 387). Other commenters recommended that finger splints be considered first aid (see, *e.g.*, Exs. 15: 201, 349, 386). The Caterpillar Company suggested that OSHA ''[e]xpand item 9 to include rigid finger splints, which are used only to prevent further injury or to maintain the cleanliness of finger lacerations and other minor wounds, rather than as part of the required medical treatment. Only splints that are used to provide rigidity as part of the required medical treatment should trigger recordability'' (Ex. 15: 201).

Several comments centered on the issue of immobilization for injuries while the worker is being transported to a medical care facility (see, *e.g.*, Exs. 15: 290, 347, 434). The Ford Motor Company remarked, ''[t]he first aid list should be expanded to include the use of any partially or totally rigid immobilizing means of support when used solely for the purpose of immobilization during initial transport for medical evaluation. For example, the use of a back board, stiff neck collar, or air splint'' (Ex. 15: 347). The American Red Cross added:

> While Red Cross would agree that this is ''first aid,'' it is unclear whether OSHA intends for use of rigid support to be considered ''medical treatment.'' In most traditional first aid classes, including those taught by Red Cross, students are taught that if, for example, a victim has broken a bone, any rigid means of support that would immobilize the limb until further medical care can be obtained should be utilized. Examples of rigid support include newspapers, magazines, sticks, boards, splints, etc., anything that is available to prevent further injury. This action may be performed by anyone who has been trained in first aid, and Red Cross does not believe that ''rigidity'' is the appropriate qualification to consider this action ''medical treatment'' (15: 290).

The General Electric Corporation (GE) recommended that OSHA rely, not on the design of the device but on whether or not the device resulted in restricted activity. GE recommended ''the following additions to the list: Use of rigid or non-rigid immobilization devices, if they don't result in restricted activity, *e.g.* wrist braces, finger splints, immobilization for transport'' (Ex. 15: 349).

OSHA has included two items related to orthopedic devices in the final definition of first aid. Item F includes ''[u]sing any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes).'' OSHA has included more examples of the devices (wraps and non-rigid back belts) to help make the definition clearer. However, OSHA believes that the use of orthopedic devices such as splints or casts should be considered medical treatment and not first aid. They are typically prescribed by licensed health care professionals for long term use, are typically used for serious injuries and illnesses, and are beyond the everyday definition of first aid. OSHA believes that it would be inappropriate to rely on ''restricted activity,'' as recommended by GE, because there may be situations where orthopedic devices are prescribed, the worker is not placed on

restrictions, but an injury or illness warranting recording has occurred.

However, OSHA agrees with those commenters who stated that the use of these devices during an emergency to stabilize an accident victim during transport to a medical facility is not medical treatment. In this specific situation, a splint or other device is used as temporary first aid treatment, may be applied by non-licensed personnel using common materials at hand, and often does not reflect the severity of the injury. OSHA has included this item as G on the first aid list: ''[u]sing temporary immobilization devices while transporting an accident victim (*e.g.* splints, slings, neck collars, etc.)''

Item 10 listed in the proposed definition of first aid was ''drilling of a nail to relieve pressure for subungual hematoma.'' A subungual hematoma is an accumulation of blood underneath a finger or toenail that is normally caused by a sharp blow to the nail. When pressure builds beneath the nail, pain results. The normal course of treatment for this injury is to drill a small hole through the nail to relieve the pressure. In the past, OSHA considered such treatment to be medical treatment and not first aid. For example, a 1993 letter from IBP, Inc. asked whether ''[d]rilling a hole through a fingernail to relieve pressure (subungual hematoma) is considered medical treatment?'' OSHA's answer was ''Yes, the draining of any fluids or blood is to be considered medical treatment'' (Ex. 70: 136).

OSHA received very few comments on this first aid item. Linda Ballas & Associates stated ''The drilling of a nail to relieve pressure for subungual hematoma should be included as medical treatment and not first aid'' (Ex. 15: 31, p. 5). The American Textile Manufacturers Institute recommended that OSHA change the item to: ''Simple relieving of the pressure of a subungual hematoma. The use of the word drilling is too restrictive. There are a number of simple procedures to relieve pressure that are considered first aid'' (Ex. 15:156). OSHA also received a similar comment from Oxychem Corporation stating that lancing a blister should be considered first aid (Ex. 15: 386).

OSHA has decided to retain this item on the first aid list and to add the lancing of blisters as well. These are both one time treatments provided to relieve minor soreness caused by the pressure beneath the nail or in the blister. These are relatively minor procedures that are often performed by licensed personnel but may also be performed by the injured worker. More serious injuries of this type will continue to be captured if they meet one or more of the other recording criteria. OSHA has specifically mentioned finger nails and toenails to provide clarity. These treatments are now included as item H on the first aid list.

Item 11 listed in the proposed definition of first aid was ''Use of eye patches.'' The *Recordkeeping Guidelines* did not provide specific guidance about eye patches. However, in a 1992 letter, OSHA provided an interpretation that the use of eye patches was first aid treatment; in that letter, ELB Inc. asked OSHA to ''[e]xplain if pressure patches on eyes are recordable or if a patch over an eye to prevent light from entering is recordable? Is the use of an eye patch recordable?'' OSHA answered '' The use of a normal eye patch is considered to be first aid. However, if the employee is unable to perform all of his/her normal job duties because of the patch, the case should be recorded based on restricted work activity. The use of a pressure eye patch is medical treatment'' (Ex. 70: 161) .

OSHA received only one comment specific to this item. The National Institute for Occupational Safety and Health (NIOSH) stated that the initial use of an eye patch would generally require medical evaluation and should not be considered first aid (Ex. 15: 407). In the final rule, OSHA has included the use of eye patches as first aid in item I of the first aid list. Eye patches can be purchased without a prescription, and are used for both serious and non-serious injuries and illnesses. OSHA believes that the more serious injuries to the eyes will that NIOSH refers to require medical treatment, such as prescription drugs or removal of foreign material by means other than irrigation or a cotton swab, and will thus be recordable.

Item 12 listed in the proposed definition of first aid was ''removal of foreign bodies not embedded in the eye if only irrigation or removal with a cotton swab is required.'' The effect of including this item in the list of first aid treatments would be to make any case involving a foreign body embedded in the eye a recordable injury.

The *Recordkeeping Guidelines* listed ''removal of foreign bodies embedded in the eye'' as medical treatment and ''removal of foreign bodies not embedded in eye if only irrigation is required'' as first aid (Ex. 2, p. 43). In subsequent letters of interpretation, the use of a cotton swab to remove a foreign body from the eye was interpreted to be first aid; injuries requiring any removal method other than irrigation or a cotton swab made the case recordable (Ex. 70: 92).

OSHA received few comments on this first aid item. NIOSH stated that any case involving a foreign body in the eye should be recorded, because ''even though removal of a foreign body from the eye may be a first aid procedure, the presence of a work-related foreign body in the eye should be recordable. These procedures should not be considered first aid'' (Ex. 15: 407). The Ford Motor Company asked OSHA to clarify that a foreign body ''embedded in or adhered to'' the eye and removed by the methods proposed would be considered first aid. Ford added that ''[t]he use of a prescription medication to anesthetize the eye for a diagnostic procedure, an assessment procedure, or flushing to remove a loose foreign body should not be considered medical treatment'' (Ex. 15: 347). Countrymark Cooperative, Inc. asked that the definition of this item be expanded to include other means of removal, stating: ''We suggest wording such as * * * Removal of foreign bodies not embedded in the eye if only irrigation or simple removal techniques are required, or comparable'' (Ex. 15: 9).

In the final rule, OSHA has included as item J ''Removing foreign bodies from the eye using only irrigation or a cotton swab.'' OSHA believes that it is often difficult for the health care professional to determine if the object is embedded or adhered to the eye, and has not included this suggested language in the final rule. In all probability, if the object is embedded or adhered, it will not be removed simply with irrigation or a cotton swab, and the case will be recorded because it will require additional treatment.

OSHA believes that it is appropriate to exclude those cases from the Log that involve a foreign body in the eye of a worker that can be removed from the eye merely by rinsing it with water (irrigation) or touching it with a cotton swab. These cases represent minor injuries that do not rise to the level requiring recording. More significant eye injuries will be captured by the records because they involve medical treatment, result in work restrictions, or cause days away from work.

Item 13, the last item listed in the proposed definition of first aid, was ''Removal of splinters or foreign material from areas other than the eyes by irrigation, tweezers, cotton swabs or other simple means.'' The *Recordkeeping Guidelines* distinguished between foreign body removal cases on the basis of the complexity of the removal technique used. According to the *Guidelines*, the ''removal of foreign bodies from a wound if the procedure is

complicated because of depth of embedment, size or location'' was medical treatment, while ''removal of foreign bodies from wound, if procedure is uncomplicated, and is, for example, by tweezers or other simple technique'' was first aid (Ex. 2, p. 43).

OSHA received one comment specific to this proposed first aid item. The Muscatine Iowa Chamber of Commerce Safety Committee stated ''The list appears to be very inclusive of what items are currently understood as first aid treatments. Our only concern is the ambiguous ending of Number 13. ''* * * or other simple means.'' This should be further defined. Change number 13 to read: ''Removal of splinters or foreign material from areas other than the eyes by irrigation, tweezers, cotton swabs or by excision not to exceed the depth of the outer layer of skin'' (Ex. 15: 87).

In the final rule, OSHA has decided to retain item 13 essentially as proposed, and this first aid treatment appears as item K on the first aid list. The inclusion of the phrase ''other simple means'' will provide some flexibility and permit simple means other than those listed to be considered first aid. Cases involving more complicated removal procedures will be captured on the Log because they will require medical treatment such as prescription drugs or stitches or will involve restricted work or days away from work. OSHA believes that cases involving the excision of the outer layer of skin are not appropriately considered first aid, as suggested by the Muscatine Iowa Chamber of Commerce; excision of tissue requires training and the use of surgical instruments.

Additions to the First Aid List Suggested by Commenters

In addition to comments about the first aid items OSHA proposed to consider first aid, a number of commenters asked for additional clarifications or recommended additions to the first aid list. The items suggested included exercise, chiropractic treatment, massage, debridement, poison ivy, bee stings, heat disorders, and burns.

Exercise: Several commenters requested adding exercise, performed either at home or at work, to the list (see, *e.g.*, Exs. 15: 201, 308, 349, 396). For example, Caterpillar suggested that OSHA ''[a]dd a listing for range of motion exercises and minor physical therapy performed at home'' (Ex. 15: 201). These comments described exercises that amount to self-administered physical therapy, and are normally recommended by a health care professional who trains the worker in the proper frequency, duration and intensity of the exercise. Physical therapy treatments are normally provided over an extended time as therapy for a serious injury or illness, and OSHA believes that such treatments are beyond first aid and that cases requiring them involve medical treatment.

Chiropractic treatment: A few commenters believe that chiropractic treatment should be treated as first aid (see, *e.g.*, Exs. 15: 154, 299, 396). For example, the Sandoz Corporation stated ''[i]t would simplify our record keeping if there were better definition of the use of chiropractors. Is one visit counted or do you have to have multiple visits'' (Ex. 15: 299). OSHA does not distinguish, for recordkeeping purposes, between first aid and medical treatment cases on the basis of number of treatments administered. OSHA also does not distinguish between various kinds of health care professionals, assuming they are operating within their scope of practice. If a chiropractor provides observation, counseling, diagnostic procedures, or first aid procedures for a work-related injury or illness, the case would not be recordable. On the other hand, if a chiropractor provides medical treatment or prescribes work restrictions, the case would be recordable.

Massage therapy: The Union Carbide company recommended the addition of massages and prescribed physical therapy to the first aid list (Ex. 15: 396). OSHA believes that massages are appropriately considered first aid and has included them as item M in the final rule's first aid list. However, physical therapy or chiropractic manipulation are treatments used for more serious injuries, and are provided by licensed personnel with advanced training and therefore rise to the level of medical treatment beyond first aid.

Debridement: Several commenters recommended that OSHA include debridement as a first aid treatment (see, *e.g.*, Exs. 15: 201, 332, 349, 387). Debridement is the surgical excision, or cutting away, of dead or contaminated tissue from a wound. The *Recordkeeping Guidelines* listed ''cutting away dead skin (surgical debridement)'' as an example of medical treatment (Ex. 2, p. 43). The Caterpillar Company recommended that OSHA ''[a]dd to the [first aid] listing provisions for the minor removal of nonviable tissue as first aid treatment'' (Ex. 15: 201).

OSHA has decided not to include debridement as a first aid treatment. This procedure must be performed by a highly trained professional using surgical instruments. Debridement is also usually performed in conjunction with other forms of medical treatment, such as sutures, prescription drugs, etc.

Intravenous (IV) administration of glucose and saline: Two commenters (Exs. 15: 154, 395) argued that the intravenous administration of saline (salt) and glucose (sugar) should be considered first aid. In former letters of interpretation, OSHA considered these treatments first aid in injury cases (see, *e.g.*, Exs. 15: 154, 395). In the final rule, however, OSHA has decided not to include the IV administration of fluids on the first aid list because these treatments are used for serious medical events, such as post-shock, dehydration or heat stroke. The administration of IVs is an advanced procedure that can only be administered by a person with advanced medical training, and is usually performed under the supervision of a physician.

The Union Carbide Corporation (Ex. 15: 396) also recommended three additions to the first aid list: UV treatment of blisters, rashes and dermatitis; acupuncture, when administered by a licensed health care professional; and electronic stimulation. After careful consideration, OSHA has decided not to include these treatments as first aid. Each of these treatments must be provided by a person with specialized training, and is usually administered only after recommendation by a physician or other licensed health care professional.

Several commenters asked that treatments for two specific types of disorders be added to the list: heat disorders and burns. OSHA has not added these types of conditions to the first aid list because the list includes treatments rather than conditions. However, OSHA has added fluids given by mouth for the relief of heat disorders to the list, in response to comments received.

Two commenters asked about the recording of heat disorders and how they relate to the definition of first aid and medical treatment. Union Carbide recommended an addition to the first aid list to state ''fluids taken internally for heat stress'' (Ex. 15: 396). The Arizona Public Service Company remarked: ''Recordability of heat stress and heat rash should be addressed based on classification of treatment (first aid vs. medical)'' (Ex. 15: 247). Under OSHA's former recordkeeping system, heat stress was recordable as an occupational illness because it results from non-instantaneous exposures that occur over time and all occupational

illnesses, including minor ones, were considered recordable.

In the final rule, OSHA agrees with Union Carbide that drinking fluids for the relief of heat disorders is a first aid rather than medical treatment and item N on the final first aid list is ''drinking fluids for relief of heat stress.'' However, as discussed above, OSHA believes that more extensive treatment, including the administration of fluids by intravenous injections (IV), are medical treatment, and more serious cases of heat disorders involving them must be entered into the records. In addition, any diagnosis by a physician or other licensed health care professional of heat syncope (fainting due to heat) is recordable under paragraph 1904.7(b)(6), Loss of Consciousness.

Burns: Many commenters recommended that OSHA include the treatment of burns on the first aid list (see, *e.g.*, Exs. 45, 170, 260, 262, 265, 288, 301, 401, 414, 443). Teepak Inc. stated ''[s]econd degree burns treated by first aid measures only, with no infection or complication or prescription medication, should be considered first aid'' (Ex. 15: 45). The Georgia Power Company argued that ''[t]reatment of all first degree burns should be added to the list of first aid treatments because they are minor injuries that are exempt from the requirements of the Act. Omission of first degree and second degree burns receiving only first aid treatment from this list is inconsistent with the recording criteria listed for burns of the skin in [proposed] Appendix B'' (Ex. 15: 260). The Chemical Manufacturers Association recommended that OSHA add ''[b]urns that require only one-time treatment. Subsequent observations and changing of bandages does not constitute medical treatment'' (Ex. 15: 301).

The former *Recordkeeping Guidelines* listed the treatment of first degree burns as an example of first aid treatment and did not consider such treatment to be recordable (Ex. 2, p. 43). In the final rule, OSHA has decided not to include burn treatments on the first aid list. If first, second, or third degree burns result in days away from work, restricted work activity, or medical treatment beyond first aid, such as prescription drugs or complex removal of foreign material from the wound, they will rise to the level that requires recording.

Taking this approach means that burns will be treated just as other types of injury are, *i.e.,* minor burn injuries will not be recordable, while more serious burns will be recorded because they will involve medical treatment. For example, a small second degree burn to the forearm that is treated with nothing more than a bandage is not recordable. A larger or more severe second degree burn that is treated with prescription creams or antibiotics, or results in restricted work, job transfer, or days away from work is recordable. The vast majority of first degree burns and minor second degree burns will not be recorded because they will not meet the recording criteria, including medical treatment. However, more serious first and second degree burns that receive medical treatment will be recorded, and third degree burns should always be recorded because they require medical treatment.

Miscellaneous First Aid and Medical Treatment Issues

The American Association of Occupational Health Nurses (AAOHN) was concerned that the public might interpret the fact that treatments were listed as first aid to mean that they did not have to be administered, in some cases, by a health care professional:

> OSHA must clarify that categorizing certain actions as first aid does not necessarily imply that these actions can be delegated to a non-health care professional. While a list of actions considered first aid treatment will offer guidance for employers in determining recordability of incidents, situations exist that will require the professional judgment of a health care professional. One example is the administration of tetanus/diphtheria shots. While it is appropriate to consider these treatments first aid for recordability, injections pose issues that require the judgment and expertise of a health care professional. One potential hazard of this treatment is the risk of side effects. The ability to identify the reaction and take appropriate measures should be handled by a qualified health care professional (Ex. 15: 181).

OSHA agrees with the AAOHN that certain treatments and interventions require the professional judgment of a health care professional. The Agency believes that these matters are best left to state agencies and licensing boards, and the final rule's definition of health care professional (see Subpart G) makes this clear.

The State of New York expressed a concern about the possible confusion some employers might experience between OSHA's requirements and those of the state workers' compensation systems. The New York Workers' Compensation Board stated:

> The proposed rule contains a broad list of treatments which will qualify as first aid, with less emphasis on the number of treatments or the resulting amount of lost time from work. It is possible that many of the items listed in the OSHA rule as first-aid treatments which do not require reporting under the proposed OSHA standard (*i.e.* use of splints, drilling a nail in a hematoma, use of compresses and non-prescription medications), may still require reporting under the WCL because in a particular case the treatment qualifies as medical treatment or because it has caused lost time from work beyond the working day. The only problem would be if employers, in complying with proposed OSHA requirements, failed to continue to comply with New York's recording and reporting requirements (Ex. 15: 68).

OSHA's reporting requirements do not in any way interfere with or have any impact on state workers compensation reporting requirements. Employers are required to record certain injuries and illnesses under the OSHA recordkeeping regulation and to observe certain other requirements under workers' compensation law. The two laws have separate functions: workers' compensation is designed to compensate injured or ill workers, while the OSH Act is designed to prevent injuries and illnesses and to create a body of information to improve understanding of their causes. Thus, certain injuries and illnesses may be reportable under state workers' compensation law but not under the OSHA recordkeeping rule, and certain injuries and illnesses may be reportable under the OSHA rule but not under one or more workers' compensation statutes. OSHA notes that employers have been following the requirements of both systems for years, and have generally not experienced difficulty in doing so.

Several commenters remarked on the need for OSHA to update the first aid list in the future (see, *e.g.*, Exs. 234, 247, 384, 407). One commenter remarked: ''The suggested first aid list adds and clarifies some treatments as first aid. There should be a mechanism for adding or removing treatments to first aid and medical treatment lists as new information becomes available'' (Ex. 15: 234). The Akzo Nobel Company suggested that ''[w]ith the assistance of occupational physicians, updates could be made quarterly and distributed via the Internet'' (Ex. 15: 384). The National Institute for Occupational Safety and Health (NIOSH) recommended ''[t]he first aid list, however, should be included as an appendix, rather than in the rule itself, in order to allow revisions to be made more easily as medical practice evolves'' (Ex. 15: 407).

In response, OSHA notes that the list is part of a definition that sets mandatory recording and reporting requirements and is a part of the regulation itself. Including the first aid list as a non-mandatory appendix would

provide additional flexibility for future updates, but doing so would not meet the purposes for which the list is intended. The list is mandatory, and making it non-mandatory would only introduce additional confusion about what is or is not to be entered into the records. As a result, the mechanism OSHA will use to update or modify the first aid list will be to pursue a future rulemaking, if and when such a rulemaking is needed. OSHA will continue to issue letters of interpretation to help employers understand the requirements as they apply to specific situations.

Paragraph 1904.7(b)(6) Loss of Consciousness

The final rule, like the former rule, requires the employer to record any work-related injury or illness resulting in a loss of consciousness. The recording of occupational injuries and illnesses resulting in loss of consciousness is clearly required by Sections 8(c) and 24 of the OSH Act. The new rule differs from the former rule only in clearly applying the loss of consciousness criterion to illnesses as well as injuries. Since the former rule required the recording of all illnesses, illnesses involving loss of consciousness were recordable, and thus OSHA expects that this clarification will not change recording practices. Thus, any time a worker becomes unconscious as a result of a workplace exposure to chemicals, heat, an oxygen deficient environment, a blow to the head, or some other workplace hazard that causes loss of consciousness, the employer must record the case.

Very few commenters addressed the issue of loss of consciousness. Three commenters asked OSHA to make sure that these cases are not recordable unless they are the result of a work-related injury or illness (see, *e.g.*, Exs. 15: 102, 159, 176). The American Frozen Food Institute (AFFI) stated that ''[l]oss of consciousness should not be reported unless it is the clear result of a work related injury or illness'' (Ex. 15: 102). The Chemical Manufacturers Association added ''OSHA must clearly indicate in the final recordkeeping rule that loss of consciousness must be induced by an occupational exposure. For example, if someone faints at work due to pregnancy or has an epileptic seizure, such loss of consciousness should not be recordable'' (Ex. 15: 176).

OSHA agrees with these commenters that, in order to be a recordable event, a loss of consciousness must be the result of a workplace event or exposure. Loss of consciousness is no different, in this respect, from any other injury or illness. The exceptions to the presumption of work-relationship at § 1904.5(b)(2)(ii) allow the employer to exclude cases that ''involve signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.'' This exception allows the employer to exclude cases where a loss of consciousness is due solely to a personal health condition, such as epilepsy, diabetes, or narcolepsy.

The American Crystal Sugar Company (Ex. 15: 363) raised the issue of phobias resulting in loss of consciousness:

> I would also like to suggest exempting an employee's loss of consciousness based on a fear-based phobia, i.e., fainting at the sight of blood. Occasionally an OSHA regulation may require blood tests, such as checking lead levels in blood. There are a few employees that will lose consciousness at the sight of a needle. These phobias are not limited to medical procedures, but may include spiders, snakes, etc. In several of our factories, the occupational health nurse will administer tetanus boosters as a service to our employees. Employees that have a phobia about injections can (and do) lose consciousness, which now makes what was intended as a service an OSHA recordable accident.

The final rule does not contain an exception for loss of consciousness associated with phobias or first aid treatment. OSHA notes, however, that the exception at paragraph 1904.5(b)(2)(iii) allows the employer to rebut the presumption of work relationship if ''the injury or illness results solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity such as blood donation, physical, flu shot, exercise class, racquetball, or baseball.'' This exception would eliminate the recording of fainting episodes involving voluntary vaccination programs, blood donations and the like. However, episodes of fainting from mandatory medical procedures such as blood tests mandated by OSHA standards, mandatory physicals, and so on would be considered work-related events, and would be recordable on the Log if they meet one or more of the recording criteria. Similarly, a fainting episode involving a phobia stemming from an event or exposure in the work environment would be recordable.

The Union Carbide Corporation (Ex. 15: 396) asked OSHA to be more precise about the definition of loss of consciousness, stating that ''[m]ost people generally understand this term without a definition, but it can be open to interpretation. For example, is 'feeling woozy' for a few seconds considered to be a loss of consciousness? Perhaps OSHA should define the term to avoid any confusion.'' In this final rule, OSHA has not included a separate definition for the term ''loss of consciousness.'' However, the language of paragraph 1904.7(b)(6) has been carefully crafted to address two issues. First, the paragraph refers to a worker becoming ''unconscious,'' which means a complete loss of consciousness and not a sense of disorientation, ''feeling woozy,'' or a other diminished level of awareness. Second, the final rule makes it clear that loss of consciousness does not depend on the amount of time the employee is unconscious. If the employee is rendered unconscious for any length of time, no matter how brief, the case must be recorded on the OSHA 300 Log.

Paragraph 1904.7(b)(7) Recording Significant Work-Related Injuries and Illnesses Diagnosed by a Physician or Other Licensed Health Care Professional

Paragraph 1904.7(b)(7) of this final rule requires the recording of any significant work-related injury or illness diagnosed by a physician or other licensed health care professional. Paragraph 1904.7(b)(7) clarifies which significant, diagnosed work-related injuries and illnesses OSHA requires the employer to record in those rare cases where a significant work-related injury or illness has not triggered recording under one or more of the general recording criteria, i.e, has not resulted in death, loss of consciousness, medical treatment beyond first aid, restricted work or job transfer, or days away from work. Based on the Agency's prior recordkeeping experience, OSHA believes that the great majority of significant occupational injuries and illnesses will be captured by one or more of the other general recording criteria in Section 1904.7. However, OSHA has found that there is a limited class of significant work-related injuries and illnesses that may not be captured under the other § 1904.7 criteria. Therefore, the final rule stipulates at paragraph 1904.7(b)(7) that any significant work-related occupational injury or illness that is not captured by any of the general recording criteria but is diagnosed by a physician or other licensed health care professional be recorded in the employer's records.

Under the final rule, an injury or illness case is considered significant if it is a work-related case involving occupational cancer (*e.g.*, mesothelioma), chronic irreversible disease (*e.g.*, chronic beryllium disease), a fractured or cracked bone (*e.g.*, broken arm, cracked rib), or a punctured

eardrum. The employer must record such cases within 7 days of receiving a diagnosis from a physician or other licensed health care professional that an injury or illness of this kind has occurred. As explained in the note to paragraph 1904.7(b)(7), OSHA believes that the great majority of significant work-related injuries and illnesses will be recorded because they meet one or more of the other recording criteria listed in § 1904.7(a): death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. However, there are some significant injuries, such as a punctured eardrum or a fractured toe or rib, for which neither medical treatment nor work restrictions may be administered or recommended.

There are also a number of significant occupational diseases that progress once the disease process begins or reaches a certain point, such as byssinosis, silicosis, and some types of cancer, for which medical treatment or work restrictions may not be recommended at the time of diagnosis, although medical treatment and loss of work certainly will occur at later stages. This provision of the final rule is designed to capture this small group of significant work-related cases. Although the employer is required to record these illnesses even if they manifest themselves after the employee leaves employment (assuming the illness meets the standards for work-relatedness that apply to all recordable incidents), these cases are less likely to be recorded once the employee has left employment. OSHA believes that work-related cancer, chronic irreversible diseases, fractures of bones or teeth and punctured eardrums are generally recognized as constituting significant diagnoses and, if the condition is work-related, are appropriately recorded at the time of initial diagnosis even if, at that time, medical treatment or work restrictions are not recommended.

As discussed in the Legal Authority section, above, OSHA has modified the Agency's prior position so that, under the final rule, minor occupational illnesses no longer are required to be recorded on the Log. The requirement pertaining to the recording of all significant diagnosed injuries and illnesses in this paragraph of the final rule, on the other hand, will ensure that all significant (non-minor) injuries and illnesses are in fact captured on the Log, as required by the OSH Act. Requiring significant cases involving diagnosis to be recorded will help to achieve several of the goals of this rulemaking. First, adherence to this requirement will produce better data on occupational injury and illness by providing for more complete recording of significant occupational conditions. Second, this requirement will produce more timely records because it provides for the immediate recording of significant disorders on first diagnosis. Many occupational illnesses manifest themselves through gradual onset and worsening of the condition. In some cases, a worker could be diagnosed with a significant illness, such as an irreversible respiratory disorder, not be given medical treatment because no effective treatment was available, not lose time from work because the illness was not debilitating at the time, and not have his or her case recorded on the Log because none of the recording criteria had been met. If such a worker left employment or changed employers before one of the other recording criteria had been met, this serious occupational illness case would never be recorded. The requirements in paragraph 1904.7(b)(7) remedy this deficiency and will thus ensure the capture of more complete and timely data on these injuries and illnesses.

The provisions of paragraph 1904.7(b)(7) are an outgrowth of Appendix B of the proposed rule, which included provisions for the recording of individual conditions, such as blood lead levels, musculoskeletal disorders, and various respiratory ailments. As OSHA explained in the preamble to the proposed rule (61 FR 4039–4042), the proposed requirements were intended to ensure the recording of significant non-fatal cases that did not meet the general criteria (days away, restricted work, medical treatment, etc.).

Proposed Appendix B has not been included in the final rule, which instead includes additional separate criteria for several of the conditions proposed to be included in Appendix B; these criteria, which cover tuberculosis cases, hearing loss cases, and so on, appear in the final rule at § 1904.8 through § 1904.12. The requirements at paragraph 1904.7(b)(7) of the final rule, which require the recording of significant injuries and illnesses not meeting one or more of the general recording criteria, will ensure the recording of the small number of significant conditions that would have been covered by proposed Appendix B and are not elsewhere addressed in the final rule. Thus, OSHA believes that cases involving the conditions listed in proposed Appendix B will be captured either by the requirements in this significant diagnosed case section or by the other general recording criteria.

In developing the text of paragraph 1904.7(b)(7) of the final rule, OSHA reviewed the following questions as they related to proposed Appendix B. Each of these questions, and the comments received, are discussed in greater detail below: (1) Are additional recording criteria beyond loss of consciousness, medical treatment, restricted work, job transfer, days away, or death needed in the final rule?; (2) if so, should these additional criteria address a finite list of specific conditions or address a broader range of disorders?; (3) how should the agency define ''significant'' injuries and illnesses?; and (4) how should the final rule ensure the work-relatedness of these cases?

Are Additional Recording Criteria Needed?

Many commenters viewed proposed Appendix B as an unnecessary addition to the other general recording criteria and argued that OSHA should use the general criteria listed in the OSH Act itself for most if not all of the listed conditions (see, *e.g.,* Exs. 15: 52, 146, 200, 203, 219, 260, 262, 265, 271, 272, 303, 313, 329, 348, 352, 353, 368, 401, 427). For example, the Atlantic Richfield Company (ARCO) stated that:

> [t]his broadening of the recordability criteria particularly as detailed in [proposed] mandatory Appendix B dilutes the significant data with marginal data and does not, in our view, fit with OSHA's stated goals for improved Log accuracy and utility. ARCO believes that for almost all of these specific exposures, the appropriate data can be captured through the normal performance criteria of whether the condition or exposure has caused a day away from work, restriction on activity, or resulted in medical treatment. It is, therefore, our opinion that Appendix B is unnecessary and appropriate for deletion (Ex. 15: 329).

However, other commenters saw a need for and supported the inclusion of additional recording criteria in the final rule (see, *e.g.,* Exs. 15: 201, 301, 304, 318). For example, the National Federation of Independent Business (NFIB) agreed that ''[t]here are some conditions which are serious enough to be recorded, but could escape the proposed recordkeeping criteria of medical treatment, restricted or loss workdays or job transfer'' (Ex. 15: 304). Caterpillar agreed ''[w]ith the basic concept proposed in Appendix B that additional guidelines are needed to capture some injuries and illnesses serious enough to be recorded, which may not be captured by the basic recordkeeping criteria'' (Ex. 15: 201).

OSHA agrees with those commenters who supported the inclusion in the final rule of an additional mechanism to ensure the capture of significant work-related injuries and illnesses that are diagnosed by a physician or other licensed health care professional but do

not, at least at the time of diagnosis, meet the criteria of death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. The recording of *all* non-minor injuries and illnesses is consistent with the OSH Act (see the Legal Authority section) and has been the intent of the recordkeeping system for many years. The primary goal of the requirement at paragraph 1904.7(b)(7) is to produce more accurate and complete data on non-minor work-related injuries and illnesses. Because the number of significant work-related injuries and illnesses may not be captured by one or more of the other general recording criteria, OSHA finds that this additional criterion is needed. However, OSHA believes that most cases will be captured by the general recording criteria.

Should Additional Criteria Address a Finite List of Specific Conditions or Address a Broader Range of Disorders?

Proposed Appendix B was composed of a finite list of disorders and their associated recording criteria. A number of commenters were concerned that an inclusive list would overlook other conditions that did not meet the general recording criteria and were not included in proposed Appendix B. For example, OxyChem wrote:

> [f]or example, aniline is a substance having specific effects from occupational exposure, but it is not listed in Appendix B. How will occupational illness cases related to aniline be treated? Under OSHA's proposal, employers will apply the general recordability criteria to make a decision, and the case will very likely not be recorded unless it involves medical treatment, loss of consciousness, etc. (Ex. 15: 386)

This issue was also raised by the International Chemical Workers, who wrote that ''[a]ppendix B limits the types of illnesses which are recordable. It needs to be textually and visually clear that this list is not an all inclusive list of recordable illnesses '' (Ex. 15: 415). Additionally, the American Industrial Hygiene Association had the following thoughts on this subject:

> [a]n addition should be made to the end of Appendix B to clarify and expand on the recording of new or emerging occupational illnesses as introduced by OSHA in Appendix B, second paragraph at the end of page 4063: ''Conditions not included in this Appendix that otherwise meet the criteria in the § 1904.4.(c) must be recorded.'' Medical diagnoses, including laboratory and diagnostic tests should be the principal criteria for recording occupational illnesses.
>
> The above quotation ''Conditions not included in this Appendix * * * must be recorded'' should be reworded to include the statement ''including symptomology with a clear workplace link'' (Ex. 15: 153).

OSHA generally agrees with these points. Limiting the recording of non-minor occupational injuries and illnesses to a finite list runs counter to the goal of this rule, which is to capture comprehensive data on all non-minor work-related injuries and illnesses, and thus including such a list would not meet the Agency's statutory mandate to collect such data. OSHA believes there will be very few injuries and illnesses that are not captured by the general recording criteria. For example, non-minor acute illnesses, such as the skin disorders potentially associated with aniline exposure, will be captured by the other criteria, particularly medical treatment beyond first aid, restricted work or job transfer, or days away from work. However, to address the gap in case capture presented by significant injury and illness cases that escape the general recording criteria, OSHA is requiring employers to record cases of chronic, irreversible disease under the § 1904.7(b)(7) criterion. This means that if long-term workplace exposure to aniline results in a chronic, irreversible liver or kidney disease, the case would be recordable at the time of diagnosis, even if no medical treatment is administered at that time and no time is lost from work. The regulatory text of paragraph 1904.7(b)(7) limits the types of conditions that are recordable, however, to significant diagnosed injury and illness cases, which are defined as cancer, chronic irreversible diseases, fractured or cracked bones, and punctured eardrums.

How Should the Agency Define ''Significant'' Injury or Illness?

Although there was considerable support in the record for the final rule to include a list of conditions that might not be captured under the general recordkeeping criteria, there was far less agreement among commenters on the specific conditions that should be listed. Many commenters agreed with Amoco, which testified that ''[t]he criteria currently listed in the proposed rule would require recording of signs, symptoms and laboratory abnormalities; situations which are not disabling, serious, or significant'' (Ex. 22). Waste Management, Inc., commented that ''[t]he definition of an illness [in the proposal] or injury refers to an adverse change in the individual. This is interpreted to mean a change which is permanent or a change which is clinically demonstrable to be adverse to the individual as a result of occupational exposure in the workplace. Some of the guidance provided in Appendix B does not meet these criteria'' (Ex. 15: 389). The Chemical Manufacturers Association suggested that only those conditions ''[w]hose seriousness is approximately equal to that of conditions captured by traditional criteria'' be included in Appendix B (Ex. 15: 301), and the Dupont Company proposed that the conditions listed in Appendix B ''[i]nclude only situations that cause a permanent change to the body structure where medical treatment may not be given'' (Ex. 15: 348). Dupont also stated that ''[O]SHA should provide scientific evidence that a change in a lab reading [laboratory tests results were also included in proposed Appendix B] is the equivalent of a serious or significant change to the body structure'' (Ex. 15: 348). Other commenters such as the Marathon Oil Company questioned whether OSHA had the legal authority ''[t]o require employers to record these non-serious exposures. The OSHA proposed criteria do not represent serious, significant or disabling injuries/illnesses as required by Section 24(a) of the Act'' (Ex. 15: 308).

OSHA believes that the conditions that are required to be recorded under § 1904.7(b)(7) of the final rule represent significant occupational injuries and illnesses as described in the OSH Act. Some clearly significant injuries or illnesses are not amenable to medical treatment, at least at the time of initial diagnosis. For example, a fractured rib, a broken toe, or a punctured eardrum are often, after being diagnosed, left to heal on their own without medical treatment and may not result in days away from work, but they are clearly significant injuries. Similarly, an untreatable occupational cancer is clearly a significant injury or illness. The second set of conditions identified in paragraph 1904.7(b)(7), chronic irreversible diseases, are cases that would clearly become recordable at some point in the future (unless the employee leaves employment before medical treatment is provided), when the employee's condition worsens to a point where medical treatment, time away from work, or restricted work are needed. By providing for recording at the time of diagnosis, paragraph 1904.7(b)(7) of the final rule makes the significant, work-related condition recordable on discovery, a method that ensures the collection of timely data. This approach will result in better injury and illness data and also is likely to be more straightforward for employers to comply with, since there is no further need to track the case to

determine whether, and at what point, it becomes recordable.

The core of the recording requirement codified at § 1904.7(b)(7) is the employer's determination that a ''significant'' injury or illness has been diagnosed. The Agency's former *Recordkeeping Guidelines* addressed this issue in interpretations about ''non minor'' injuries that did not meet the general recording criteria of death, days away, restricted work, transfer to another job, medical treatment or loss of consciousness. The *Guidelines* stated (Ex. 2, p. 42) that:

> The distinction between medical treatment and first aid depends not only on the treatment provided, but also on the severity of the injury being treated. First aid is: (1) Limited to one-time treatment and subsequent observation; and (2) involves treatment of only minor injuries, not emergency treatment of serious injuries. Injuries are not minor if:
> (a) They must be treated only by a physician or licensed medical personnel;
> (b) They impair bodily function (*i.e.,* normal use of senses, limbs, etc.);
> (c) They result in damage to the physical structure of a nonsuperficial nature (*e.g.*, fractures); or
> (d) They involve complications requiring followup medical treatment.

Many commenters on the proposal simply stated that the system must include all serious, significant or disabling injuries, and exclude cases that did not rise to that level (see, *e.g.*, Exs. 25; 15: 55, 135, 144, 154, 158, 162, 165, 193, 201, 206, 207, 211, 212, 220, 228, 238, 240, 243, 252, 253, 257, 258, 261, 264, 267, 272, 274, 276, 286, 293, 303, 305, 306, 309, 318, 320, 346, 354, 358, 365, 368, 375, 382, 383, 395, 397, 408, 412, 420, 421, 427, 434). The comments of the American Petroleum Institute (API) reflect this view: ''[A]PI is strongly opposed to any provision which would require a case to be recorded which is not serious or which is not likely to become serious. API strongly disagrees that non-serious subjective signs, symptoms, abnormal health test results, or evidence of exposure in and of themselves should be recorded on the OSHA log—unless the case otherwise meets one of the traditional criteria (*e.g.*, medical treatment, *et al.*) or results in, or is expected to result in a serious impairment'' (Ex. 15: 375).

Many comments believed that the recordability of occupational illnesses should rely on the diagnosis of a health care professional. For example, the U.S. Small Business Administration recommended that ''[a] recordable incident under the [proposed] 'Specific Conditions' should be subject to a health care provider's clinical diagnosis'' (Ed. 15: 67); Fort Howard recommended that ''[t]he Company disagrees with the [proposed] Mandatory Appendix B concept particularly in light of the statement in the Proposal that an employer can not rely solely on the clinical diagnosis of an injury or illness by a physician. Fort Howard recommends that an employer be allowed to specifically rely on the conclusions of those trained in this field, namely physicians'' (Ex. 15: 194); and Country Mark Cooperative recommended that '' [i]f an illness is diagnosed by a medical provider as linked to the cause agent, then it would be recorded as 'otherwise recordable' until such time as other recordable criteria are met such as days unable to work'' (Ex. 15: 9). BASF commented that ''[proposed] Appendix B should not require the recording of merely signs, symptoms, or laboratory abnormalities. Instead, it should also include objective findings or observations on the part of health care providers regarding the diagnosis of a serious illness or effect not otherwise subject to recording requirements'' (Ex. 15: 403).

Only a few commenters suggested methods for differentiating between serious and non-serious cases, in the context of conditions that should be listed in the final rule (see, *e.g.*, Exs. 15: 135, 176, 193, 199, 258, 375, 396). The API suggested that, if OSHA identifies a need to define ''disabling, serious or significant'' explicitly, the Agency should consider the following criteria:

> [a]ny other case which results in a serious impairment or significant injury for which no effective treatment exists, or
> involves a diagnosis of a condition which in time is expected to result in a serious impairment (or death), *e.g.*, certain asbestos-related diseases; or
> involves evidence of a chemical exposure at biological levels where criteria in an OSHA standard requires medical removal (Ex. 15: 375).

Elsewhere in their comments, the API recommended criteria for selecting which conditions would be listed in proposed Appendix B as follows:

> [t]he purpose of this appendix [proposed Appendix B] is to provide for the mandatory recording of occupational injuries and illnesses which are also serious or significant—but which do not immediately result in medical treatment, restricted work * * *
> Such cases fall into three broad categories. They occur when the injury or illness either
> Results in a serious impairment (unable to perform any normal life activity such as walking, eating, thinking, talking, breathing, seeing, smelling, hearing, driving a car. Incontinence and impotence would also be included)
> Involves a diagnosis of a condition which in time is expected to result in serious impairment (or death), *e.g.* certain asbestos related diseases,
> or
> Involved evidence of a chemical exposure at biological levels where criteria in an OSHA standard requires medical removal (Ex. 15: 375).

Adapto, Inc. (Ex. 15: 258) focused on the major life activity concept, stating that:

> [a]s mentioned previously, Congress intended that the statistical data compiled under this rule be limited to cases involving disabling, serious, or significant injuries or illness. Adapto, Inc. believes this phrase generally refers to a work-related condition that results in a physical or mental impairment that substantially limits a major life activity.

Union Carbide (Ex. 15: 396) urged that the following factors be used for determining the conditions that should be included in the final rule:

> Serious illnesses caused by exposures which are chronic and cumulative in nature
> Serious illnesses with a long latency period between exposure and recognition of the significant illness condition
> Serious illnesses which are likely to result in significant impairment
> Serious illnesses without a known or widely recognized medical treatment until advanced stages.

The Chemical Manufacturing Association (Ex. 15: 176) restated the same factors articulated by Union Carbide and added another factor: ''[s]erious illnesses that are not treatable.'' The NYNEX Corporation (Ex. 15: 199), the National Broiler Council (NBC), and the National Turkey Federation (Ex. 15: 193), in identical comments, focused on the idea of cases with an expectation of serious impairment or death, stating:

> [w]e do recognize, however, that there are some cases that do not meet this criteria that do have the expectation of resulting in serious impairment or even death. We are in agreement that cases of this potential seriousness should be recorded when they are diagnosed by a competent physician or medical professional as work-related.

The Macon Corporation (Ex. 15: 135) suggested using a material impairment test, suggesting that ''[w]e need to establish an effective system for the collection of data on serious work related injuries and illnesses which, at the time of recording, represent a material impairment to the health or functional capacity [of the injured or ill worker].'' OSHA has not adopted the material impairment alternative in the final rule because the term has specific meaning in the context of OSHA rulemaking. Section 6(b)(5) of the Act,

which sets forth the criteria for promulgating standards dealing with toxic substances or harmful physical agents, states that OSHA shall ''set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer *material impairment of health or functional capacity even* if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life (emphasis added).'' OSHA believes that use of this term in the recordkeeping rule could cause confusion among employers.

In the final rule, OSHA has adopted an approach similar to that suggested by the American Petroleum Institute, *i.e.,* focusing on two types of injury and illness: those that may be essentially untreatable, at least in the early stages and perhaps never (fractured and cracked bones, certain types of occupational cancer, and punctured eardrums) and those expected to progressively worsen and become serious over time (chronic irreversible diseases). The final rule is also responsive to the many commenters who urged OSHA to adopt a definition of severity for this requirement that would include all serious and significant injuries and illnesses, while excluding less serious cases. The language of paragraph 1904.(b)(7) of the final rule also responds to comments presented by commenters on the proposal who argued that relying on test results or other measures as indicators of serious occupational injury or illness was inappropriate. Instead, the final rule relies exclusively on the diagnosis of a limited class of injuries and illnesses by a physician or other licensed health care professional.

Clarifying That Cases Captured by Paragraph 1904.7(b)(7) Must Be Work Related

A number of commenters on the proposal expressed concern that proposed Appendix B was not clear enough about the fact that conditions must be work-related to be recordable on the OSHA forms. For example, several commenters asked OSHA to make sure that recordable cases of asthma are work-related (see, *e.g.*, Exs. 15: 38, 78, 80, 83, 89, 105, 157, 163, 188, 197, 203, 239, 279, 281, 297, 299, 302, 337, 345, 378, 395, 414). The Jewel Coal and Coke Company (Ex. 15: 281) stated that ''[asthma, in nearly all cases, is genetic and, to be recordable, we feel must be a direct result of something in the working OSHA environment. To require anything else would cause the unnecessary recording of cases of genetic asthma with no relationship to the working environment and would serve no purpose other than to balloon the statistics.''

OSHA wishes to reiterate that *any* condition that is recordable on the OSHA injury and illness recordkeeping forms must be work-related, and § 1904.7(b)(7) includes the term ''work-related'' to make this fact clear. In addition, because the employer will be dealing with a physician or other licensed health care professional, he or she may also be able to consult with the health care professional about the work-relatedness of the particular case. If the employer determines, based either on his or her own findings or those of the professional, that the symptoms are merely arising at work, but are caused by some non-work illness, then the case would not be recorded, under exception (b)(2)(ii) to the work-relatedness presumption at § 1904.5(b)(2) of the final rule. Similarly, if workplace events or exposures contributed only insignificantly to the aggravation of a worker's preexisting condition, the case need not be recorded under § 1904.5(a) and § 1904.5(b)(3) of the final rule.

The provisions of § 1904.7(b)(7) of the final rule thus meet the objectives of (1) capturing significant injuries and illnesses that do not meet the other general recording criteria of death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness; (2) excluding minor injuries and illnesses; (3) addressing a limited range of disorders; and (4) making it clear that these injuries and illnesses must be work-related before they must be recorded.

Section 1904.8 Additional Recording Criteria for Needlestick and Sharps Injuries

Section 1904.8 of the final rule being published today deals with the recording of a specific class of occupational injuries involving punctures, cuts and lacerations caused by needles or other sharp objects contaminated or reasonably anticipated to be contaminated with blood or other potentially infectious materials that may lead to bloodborne diseases, such as Acquired Immunodeficiency Syndrome (AIDs), hepatitis B or hepatitis C. The final rule uses the terms ''contaminated,'' ''other potentially infectious material,'' and ''occupational exposure'' as these terms are defined in OSHA's Bloodborne Pathogens standard (29 CFR 1910.1030). These injuries are of special concern to healthcare workers because they use needles and other sharp devices in the performance of their work duties and are therefore at risk of bloodborne infections caused by exposures involving contaminated needles and other sharps. Although healthcare workers are at particular risk of bloodborne infection from these injuries, other workers may also be at risk of contracting potentially fatal bloodborne disease. For example, a worker in a hospital laundry could be stuck by a contaminated needle left in a patient's bedding, or a worker in a hazardous waste treatment facility could be occupationally exposed to bloodborne pathogens if contaminated waste from a medical facility was not treated before being sent to waste treatment.

Section 1904.8(a) requires employers to record on the OSHA Log all work-related needlestick and sharps injuries involving objects contaminated (or reasonably anticipated to be contaminated) with another person's blood or other potentially infectious material (OPIM). The rule prohibits the employer from entering the name of the affected employee on the Log to protect the individual's privacy; employees are understandably sensitive about others knowing that they may have contracted a bloodborne disease. For these cases, and other types of privacy concern cases, the employer simply enters ''privacy concern case'' in the space reserved for the employee's name. The employer then keeps a separate, confidential list of privacy concern cases with the case number from the Log and the employee's name; this list is used by the employer to keep track of the injury or illness so that the Log can later be updated, if necessary, and to ensure that the information will be available if a government representative needs information about injured or ill employees during a workplace inspection (see § 1904.40). The regulatory text of § 1904.8 refers recordkeepers and others to § 1904.29(b)(6) through § 1904.29(b)(10) of the rule for more information about how to record privacy concern cases of all types, including those involving needlesticks and sharps injuries. The implementation section of § 1904.8(b)(1) defines ''other potentially infectious material'' as it is defined in OSHA's Bloodborne Pathogens Standard (29 CFR § 1910.1030, paragraph (b)). Other potentially infectious materials include (i) human bodily fluids, human tissues and organs, and (ii) other materials infected with the HIV or hepatitis B (HBV) virus such as laboratory cultures or tissues from experimental animals. (For a complete list of OPIM, see paragraph (b) of 29 CFR 1910.1030.)

Although the final rule requires the recording of all workplace cut and puncture injuries resulting from an event involving contaminated sharps, it does not require the recording of all cuts and punctures. For example, a cut made by a knife or other sharp instrument that was not contaminated by blood or OPIM would not generally be recordable, and a laceration made by a dirty tin can or greasy tool would also generally not be recordable, providing that the injury did not result from a contaminated sharp and did not meet one of the general recording criteria of medical treatment, restricted work, etc. Paragraph (b)(2) of § 1904.8 contains provisions indicating which cuts and punctures must be recorded because they involve contaminated sharps and which must be recorded only if they meet the general recording criteria.

Paragraph (b)(3) of § 1904.8 contains requirements for updating the OSHA 300 Log when a worker experiences a wound caused by a contaminated needle or sharp and is later diagnosed as having a bloodborne illness, such as AIDS, hepatitis B or hepatitis C. The final rule requires the employer to update the classification of such a privacy concern case on the OSHA 300 Log if the outcome of the case changes, i.e., if it subsequently results in death, days away from work, restricted work, or job transfer. The employer must also update the case description on the Log to indicate the name of the bloodborne illness and to change the classification of the case from an injury (i.e., the needlestick) to an illness (i.e., the illness that resulted from the needlestick). In no case may the employer enter the employee's name on the Log itself, whether when initially recording the needlestick or sharp injury or when subsequently updating the record.

The privacy concern provisions of the final rule make it possible, for the first time, for the identity of the bloodborne illness caused by the needlestick or sharps injury to be included on the Log. By excluding the name of the injured or ill employee throughout the recordkeeping process, employee privacy is assured. This approach will allow OSHA to gather valuable data about the kinds of bloodborne illnesses healthcare and other workers are contracting as a result of these occupational injuries, and will provide the most accurate and informative data possible, including the seroconversion status of the affected worker, the name of the illness he or she contracted, and, on the OSHA 301 Form for the original case, more detailed information about how the injury occurred, the equipment and materials involved, and so forth. Use of the privacy case concept thus meets the primary objective of this rulemaking, providing the best data possible, while simultaneously ensuring that an important public policy goal—the protection of privacy about medical matters—is met. OSHA recognizes that requiring employers to treat privacy cases differently from other cases adds some complexity to the recordkeeping system and imposes a burden on those employers whose employees experience such injuries and illnesses, but believes that the gain in data quality and employee privacy outweigh these disadvantages considerably.

The last paragraph (paragraph (c)) of § 1904.8 deals with the recording of cases involving workplace contact with blood or other potentially infectious materials that do not involve needlesticks or sharps, such as splashes to the eye, mucous membranes, or non-intact skin. The final recordkeeping rule does not require employers to record these incidents unless they meet the final rule's general recording criteria (i.e., death, medical treatment, loss of consciousness, restricted work or motion, days away from work, diagnosis by an HCP) or the employee subsequently develops an illness caused by bloodborne pathogens. The final rule thus provides employers, for the first time, with regulatory language delineating how they are to record injuries caused by contaminated needles and other sharps, and how they are to treat other exposure incidents (as defined in the Bloodborne Pathogens standard) involving blood or OPIM. ''Contaminated'' is defined just as it is in the Bloodborne Pathogens standard: ''Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.''

Before issuance of this final recordkeeping rule, the OSHA compliance directive CPL 2–2.44C for the Bloodborne Pathogens standard, ''Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens Standard, 29 CFR 1910.1030'' provided recording guidance to employers of occupationally exposed employees. The CPL 2–2.44C guidance treated cuts, lacerations and exposure incidents identically, classifying all of the events as injuries because they usually result from instantaneous events or exposures. The employer was required to record an incident when it met one of the following requirements:

1. The incident is a work-related injury that involves loss of consciousness, transfer to another job, or restriction of work or motion.

2. The incident results in the recommendation of medical treatment beyond first aid (*e.g.*, gamma globulin, hepatitis B immune globulin, hepatitis B vaccine, or zidovudine) regardless of dosage.

3. The incident results in a diagnosis of seroconversion. The serological status of the employee shall not be recorded on the OSHA 200. If a case of seroconversion is known, it shall be recorded on the OSHA 200 as an injury (*e.g.*, ''needlestick'' rather than ''seroconversion'') in the following manner:

a. If the date of the event or exposure is known, the original injury shall be recorded with the date of the event or exposure in column B.

b. If there are multiple events or exposures, the most recent injury shall be recorded with the date that seroconversion is determined in column B.

In 1999, OSHA updated CPL 2–2.44 and changed this language to simply refer to the Part 1904 regulation, in anticipation of the publication of this final recordkeeping rule.

The proposal

In the 1996 **Federal Register** notice, OSHA proposed recording criteria for needlestick and sharps injuries that were the same as the criteria being set forth in this final rule. The requirements in the final rule have been stated in slightly different language from those in the proposal to be consistent with the format of the remainder of the rule. The only substantive difference between the approach taken in the proposal and that in the final rule is the way that cases are handled to protect the privacy of the injured or ill worker. Appendix B of the proposed rule (61 FR 4065) included requirements to record the following:

''any workplace bloodborne pathogen exposure incident (as defined in 1910.1030(b)) that results in a positive blood test or diagnosis by a health care provider indicating AIDS, HIV seroconversion, hepatitis B or hepatitis C.

OR

any laceration or puncture wound that involves contact with another person's blood or other potentially infectious materials.

Note: to protect employee confidentiality, employers shall record occupationally acquired bloodborne pathogen diseases, such as hepatitis B, simply as the initial bloodborne exposure incident and note the exposure type (*e.g.* needlestick). Seroconversion and specific type of bloodborne disease shall not be recorded.''

OSHA explained in its proposal that recording these incidents was appropriate because these injuries are clearly non-minor, and recording them would be consistent with the Agency's mandate to collect information related to the death, illness, and injury of workers (61 FR 4041). OSHA then requested comment on whether it would be appropriate to record small puncture

wounds and lacerations that do not lead to disease, and whether OSHA should require employers to record all ''exposure incidents'' involving exposure to blood or OPIM, not just *injuries* involving contaminated needles and sharps. The proposal also asked for comment about the special privacy concerns potentially associated with bloodborne pathogen injuries and illnesses, and asked the following questions: ''What data is useful to collect? Are there other criteria for the recording of bloodborne infectious diseases which should be considered? What experience do employers have in data collection systems for this hazard?''

These proposed recording criteria for needlesticks and sharps injury cases prompted many comments to the rulemaking record. Very few of the comments supported OSHA's proposed position on this issue. Commenters either recommended recording all bloodborne pathogen exposure incidents or sharply limiting the recording of these events. A large number of commenters either objected specifically to the recording of all bloodborne pathogen exposure incidents or objected to the entire contents of proposed Appendix B (see, *e.g.*, Exs. 15: 1, 37, 38, 39, 44, 48, 52, 61, 66, 69, 74, 78, 82, 89, 100, 119, 121, 122, 126, 133, 146, 151, 152, 154, 156, 179, 193, 197, 200, 201, 203, 204, 213, 218, 219, 239, 254, 260, 262, 265, 271, 272, 277, 287, 297, 299, 301, 303, 305, 308, 310, 313, 317, 322, 329, 335, 345, 346, 347, 348, 349, 351, 352, 353, 361, 364, 373, 374, 375, 378, 392, 393, 395, 396, 398, 401, 403, 405, 407, 408, 409, 425, 434, 435). The most frequent suggestion made by commenters was that the only criterion for recording bloodborne pathogen diseases should be a positive blood test or diagnosis by a health care professional (see, *e.g.*, Exs. 15: 1, 38, 61, 65, 78, 82, 119, 122, 133, 151, 152, 179, 201, 213, 260, 262, 265, 290, 299, 301, 317, 345, 347, 373, 374, 393, 401, 407, 408, 435, 442). Many of the commenters who objected to recording all bloodborne incidents on the Log argued that these cases reflect exposure only and do not usually reflect cases that rise to the level of an injury or illness (see, *e.g.*, Exs. 15: 44, 69, 78, 151, 152, 179, 197, 201, 239, 272, 277, 287, 303, 308, 313, 345, 347, 348, 349, 351, 352, 353, 364, 373, 374, 375, 386, 392, 395, 396, 403, 405, 423, 425, 442). Other commenters urged OSHA to consider these cases minor injuries if they do not result in disease (see, *e.g.*, Exs. 15: 52, 290, 317, 403, 409, 434). Many agreed with the comments submitted by Bellin Hospital, which stated ''[r]ecording of all Significant Exposures is unnecessary. Seroconversions after exposure, regardless of mode of exposure is appropriate recordkeeping only'' (Ex. 15: 38). Several commenters made similar points. For example, Atlantic Dry Dock (Ex. 15: 179) wrote that ''[n]ot all contact [with blood or other potentially infectious materials] will result in an infection. There is no injury/illness unless an infection has actually resulted from the contact.''

Some commenters suggested that only those cases that resulted in either medical treatment or seroconversion should be recorded on the Log (see, *e.g.*, Exs. 15: 48, 100, 213, 310, 395, 416, 423), while others advocated recording lacerations and puncture wounds only if they met the rule's general recording criteria (see, *e.g.*, Exs. 15: 52, 200, 203, 219, 260, 262, 265, 271, 313, 329, 348, 352, 353, 401). As Bell Atlantic (Ex. 15: 128) commented, ''[s]erious lacerations and puncture wounds involving contact with bloodborne pathogens should be reported. But the mechanism driving such reporting is the severity of the wound and NOT the presence of bloodborne pathogens. Even with the absence of bloodborne pathogens, such serious injuries would be recorded.''

The American Hospital Association and the Georgia Hospital Association expressed concern that bloodborne pathogen disease criteria require ''the recording of all instances of certain conditions that meet specific criteria, whether or not they meet OSHA's established criteria for recordability (work-relationship; involves medical treatment or death, loss of consciousness, or in-patient hospitalization, or days away from work restricted work activity, or job transfer)'' (Exs. 15: 100, 219).

Several commenters stated that the recording of all bloodborne pathogen incidents would be redundant and unnecessary (see, *e.g.*, Exs. 15: 66, 121, 299, 322, 408, 435). Some commenters said that OSHA's bloodborne pathogen standard already requires recordkeeping and tracking of bloodborne pathogen exposure incidents (see, *e.g.*, Exs. 15:39, 89, 121, 310, 351, 378, 393, 405, 416), and others remarked that general medical records already contained adequate data (see, *e.g.*, Exs. 15: 151, 152, 179).

A number of commenters discussed the effect on injury and illness statistics that would be caused by recording all bloodborne pathogen incidents (see, *e.g.*, Exs. 15: 39, 44, 48, 61, 66, 69, 126, 146, 151, 152, 179, 201, 239, 287, 290, 308, 313, 329, 345, 352, 353, 364, 405). The Society of the Plastics Industry, Inc. (Ex. 15: 364) said that ''Requiring recording of exposure incidents rather than actual illnesses will improperly inflate the statistics regarding these diseases.'' Patrick Tyson, a partner at Constangy, Brooks & Smith, LLC, (Ex. 15: 345) stated:

> In effect, the Proposed Recordkeeping Rule would include on the Log those exposure incidents where a medical follow-up examination actually rules out the resulting illness. I believe that the Logs should not be used in this fashion any more than they should be used to record incidents of high levels of workplace noise in the absence of actual hearing loss, or incidents of employee exposure to highly repetitive jobs in the absence of resulting musculo-skeletal disorders. Simply stated, the OSH Act does not contemplate or intend the recording of mere exposure incidents on the OSHA Log. To do so would artificially overstate the relative safety and health risk in the American workplace.

On the other hand, a number of commenters recommended that OSHA require the recording of all bloodborne pathogen incidents as defined in the bloodborne pathogens standard (see, *e.g.*, Exs. 24, 15: 72, 153, 181, 196, 198, 289, 379, 380, 418). Several of these commenters urged the recording of all exposure incidents to improve the information on these injuries and promote better protection for workers (see, *e.g.*, Exs. 24, 15: 72, 153, 181, 196, 289, 379, 380). The American Association of Occupational Health Nurses (AAOHN) remarked ''The benefit in keeping these detailed records of bloodborne pathogen exposures will be the ability to track the root cause of resultant injuries and illnesses, regardless of latency'' (Ex. 15: 181). The National Association of Operating Room Nurses (Ex. 15: 72) added ''Reporting exposures may raise consciousness resulting in work practice changes and decreased hazard.''

Two commenters cited the severity of these incidents as a reason for requiring the recording of all exposure incidents (Exs. 24; 15: 379). The American Nurses Association based its arguments on the severity of the risk, stating ''While the Center for Disease Control and Prevention (CDC) Cooperative Needlestick Surveillance Group reported no seroconversions to HIV positive from mucous membrane or skin exposure, Hepatitis infections have been reported following exposures via these routes. The nature of the risk to HIV however small is very severe, deadly in fact; and the risk of Hepatitis is even greater. Because of the severity of the risk, we believe that all exposures must be recorded'' (Ex. 24). The Service Employees International Union (SEIU) added ''The lives of thousands of health

care workers each year are unnecessarily devastated by occupational exposure to hepatitis B, hepatitis C and HIV. A workplace exposure to blood or other potentially infectious materials represents a significant event in the life of a health care worker, regardless of whether or not the exposure results in infection with hepatitis B, hepatitis C or HIV'' (Ex. 15: 379).

A few commenters remarked on the need for consistency between the bloodborne pathogens standard and the recordkeeping requirements (see, *e.g.*, Exs. 15: 153, 198, 379). The National Association for Home Care (NAHC) stated ''NAHC believes that OSHA should maintain consistency between individual OSHA bloodborne pathogen requirements and general OSHA reporting requirements. Reporting of all exposure incidents is consistent with OSHA's bloodborne pathogen regulations for health care settings which require medical follow-up of employees for all exposure incidents'' (Ex. 15: 198).

Several commenters suggested recording all incidents as a method for masking the identity of workers who actually contract disease as a result of their injury (see, *e.g.*, Exs. 15: 379, 380, 418). The AFL–CIO (Ex. 15: 418) stated:

> The AFL–CIO believes that exposures to bloodborne pathogens pose a unique case with respect to confidentiality and privacy concerns. As the Agency has recognized in the Bloodborne Pathogen Standard, 29 CFR 1910.1030, there are real and legitimate concerns about discrimination against individuals who have tested positive for HIV and other bloodborne infectious diseases. To address these legitimate confidentiality concerns, the AFL–CIO believes that a different approach to recording cases related to bloodborne pathogens is required. For these cases, we recommend that the Agency require the recording of needlestick injuries and all exposures to blood or blood contaminated body fluids on the Log 300 and on the 301. Cases involving actual seroconversions should be recorded in the confidential medical record. This approach would be consistent with the approach and language in the bloodborne pathogen standard. It would permit the log to be used to track individual cases of exposure for prevention purposes, while at the same time maintaining the confidentiality of individuals whose health status had changed as a result of exposure. The AFL–CIO recognizes that this approach will require the recording of exposure incidents which do not result in the change of health status and sets different criteria for recording cases related to bloodborne pathogens. Given the unique confidentiality concerns associated with this set of conditions, we believe that this special treatment for these conditions is warranted.

After a review of the many comments in the record on this issue, OSHA has decided to require the recording of all workplace injuries from needlesticks and sharp objects that are contaminated with another person's blood or other potentially infectious material (OPIM) on the OSHA Log. These cases must be recorded, as described above, as privacy concern cases, and the employer must keep a separate list of the injured employees' names to enable government personnel to track these cases. OSHA does not agree with those commenters who were of the opinion that contaminated needlestick and sharps injuries are minor injuries comparable in importance to a puncture by a sewing needle or leather punch. OSHA also disagrees with those commenters who believed these incidents are merely exposure incidents roughly comparable with exposure to loud noises. These incidents are clearly injuries, where the worker has experienced a cut or laceration wound.

OSHA recognizes that these injuries are different from most workplace cuts and lacerations, whose seriousness depends largely on the size, location, jaggedness, or degree of contamination of the cut, which determines the need for medical treatment, restricted work, or time away for recuperation and thus the recordability of the incident. In contrast, all injuries from contaminated needles and sharps are serious because of the risk of contracting a potentially fatal bloodborne disease that is associated with them.

Many commenters argued that needlestick and sharps injuries are not the kinds of injuries that Congress intended employers to record, as articulated in the OSH Act (see, *e.g.*, Exs. 15: 239, 308, 313, 345, 352, 353, 375, 395). As discussed earlier in the Legal Authority section, OSHA disagrees, believing that Congress mandated the recording of all non-minor injuries and illnesses as well as all injuries resulting in medical treatment or one of the other general recording criteria. OSHA finds that needlestick and sharps injuries involving blood or other potentially infectious materials are non-minor injuries, and therefore must be recorded. This conclusion is consistent with the Senate Committee on Appropriations report accompanying the fiscal year 1999 *Departments of Labor, Health and Human Services, and Education and Related Agencies Appropriation Bill, 1999* (S. 2440) which included the following language:

> Accidental injuries from contaminated needles and other sharps jeopardize the well-being of our Nation's health care workers and result in preventable transmission of devastating bloodborne illnesses, including HIV, hepatitis B, and hepatitis C. The committee is concerned that the OSHA 200 Log does not accurately reflect the occurrence of these injuries. The committee understands that the reporting and recordkeeping standard (29 CFR 1904) requires the recording on the OSHA 200 Log of injuries from potentially contaminated needles and other sharps that result in: the recommendation or administration of medical treatment beyond first aid; death, restriction of work or motion; loss of consciousness, transfer to another job, or seroconversion in the worker. Accidental injuries with potentially contaminated needles or other sharps require treatment beyond first aid. Therefore, the Committee urges OSHA to require the recording on the OSHA 200 log of injuries from needles and other sharps potentially contaminated with bloodborne pathogens (Senate Report 105–300).

OSHA finds that these injuries are significant injuries because of the risk of seroconversion, disease, and death, they pose (see the preamble to the OSHA Bloodborne Pathogens Standard at 56 FR 64004).

OSHA recognizes that requiring the recording of all injuries from contaminated needles and sharps will result in more cases being recorded on employers' Logs and will increase the number of such injuries reflected in the Nation's statistics. However, the Agency does not agree that the statistics will be inappropriately inflated. Instead, OSHA believes that the statistics will henceforth include, for the first time, cases that reflect the incidence of these significant injuries accurately. Adding these cases to the Nation's statistics will create a more accurate accounting of work-related injury and illness cases, information that will be useful to employers, employees, the government and the public. In addition, the collection of this information at the establishment level will generate data employers and employees can use to analyze injury and illness patterns and make improvements in work practices and equipment. Recording these injuries will thus help to realize one of this rulemaking's primary goals, to improve the utility and quality of the information in the records.

If OSHA were to adopt a final rule that only required the recording of seroconversion cases and cases that met the general recording criteria, as many commenters suggested (see, *e.g.*, Exs. 15: 52, 200. 203, 219, 260, 262, 265, 271, 313, 329, 348, 352, 353, 401), the Nation's statistics would not be as complete and accurate, and workplace records would not have the same preventive value for employees and employers. In addition, that approach would be more complex because it

would require employers to evaluate each case against several criteria before recording it. The approach taken in the final rule is considerably simpler. Recording all such injuries also helps to protect the privacy of workers who have been injured in this way. Needlestick and sharps injuries raise special privacy concerns. The comments on this subject show a universal concern for the privacy of a worker's medical information and disease status, and OSHA has taken several special precautions, discussed elsewhere in the preamble, to protect this privacy. Several commenters suggested recording all needlesticks and sharps incidents as a method for masking the identify of workers who actually contract disease (see, *e.g.*, Exs. 15: 379, 380, 418). OSHA has adopted this practice in the final rule because recording all of these injuries will help to protect the privacy of individual workers as well as produce higher quality data.

OSHA disagrees with those commenters who argued that the § 1904.8 recording requirement would be duplicative or redundant with the requirements in the Bloodborne Pathogens standard (29 CFR 1910.1030). That standard requires the employer to document the route(s) of exposure and the circumstances under which the exposure incident occurred, but does not require that it be recorded on the Log (instead, the standard requires only that such documentation be maintained with an employee's medical records). The standard also has no provisions requiring an employer to aggregate such information so that it can be analyzed and used to correct hazardous conditions before they result in additional exposures and/or infections. The same is true for other medical records kept by employers: they do not substitute for the OSHA Log or meet the purposes of the Log, even though they may contain information about a case that is also recorded on the Log.

OSHA is requiring only that lacerations and puncture wounds that involve contact with another person's blood or other potentially infectious materials be recorded on the Log. Exposure incidents involving exposure of the eyes, mouth, other mucous membranes or non-intact skin to another person's blood or OPIM need not be recorded unless they meet one or more of the general recording criteria, result in a positive blood test (seroconversion), or result in the diagnosis of a significant illness by a health care professional. Otherwise, these exposure incidents are considered only to involve exposure and not to constitute an injury or illness. In contrast, a needlestick laceration or puncture wound is clearly an injury and, if it involves exposure to human blood or other potentially infectious materials, it rises to the level of seriousness that requires recording. For splashes and other exposure incidents, the case does not rise to this level any more than a chemical exposure does. If an employee who has been exposed via a splash in the eye from the blood or OPIM of a person with a bloodborne disease actually contracts an illness, or seroconverts, the case would be recorded (provided that it meets one or more of the general recording criteria).

Privacy Issues

There was support in the record for OSHA's proposal to record occupationally acquired bloodborne pathogen diseases simply as the initial bloodborne exposure incident to protect employee confidentiality. Eli Lilly and Company (Ex. 15: 434) commented:

> Lilly agrees with the Agency's proposed method of recording exposure incidents that result in disease. All of these recordable incidents should be recorded simply as the type of bloodborne exposure incident (*e.g.* needlestick) with no reference to the type of disease. While Lilly is concerned about protecting the privacy of every individual employee's medical information, Lilly concedes that the current social stigma resulting from bloodborne pathogen diseases demands a more simple recordkeeping requirement.

Privacy issues, however, concerned many of the commenters to the rulemaking record. Metropolitan Edison/Pennsylvania Electric Company (M/P), for example, was so concerned with employee privacy that ''[d]ue to the sensitivity of Bloodborne Pathogenic diseases and related confidentiality concerns, M/P disagrees with recording these types of incidents'' (Ex. 15: 254). The American Automobile Manufacturers Association (AAMA), among others, expressed concern that the recording requirement for bloodborne pathogen diseases would discourage employees from reporting exposures and might also discourage individuals from seeking treatment. AAMA wrote:

> [m]any individuals who contract an infectious disease from a workplace event or exposure will be against having their names on the OSHA log for scrutiny by any employee or former employee of the establishment. To openly list (on the OSHA log) an individual with an infectious disease will discourage some employees from reporting exposures. It may also discourage individuals from seeking treatment, which may be lifesaving or which may limit the spread of the disease. We oppose the development of any system which directly or indirectly discourages individuals from seeking medical evaluation or treatment, for the sake of data collection (Ex. 15: 409).

The AAMA proposed as an alternative ''to remove all personal identifiers for infectious disease cases from the OSHA log. Some type of employer created coding system could be instituted, as long as the code was consistently applied. Authorized medical personnel and government representatives would be the only individuals permitted access to the personal identifiers and/or key to the coding system'' (Ex. 15: 409). The Quaker Oats Company and the Ford Motor Company supported similar alternatives (Exs. 15: 289, 347). A number of commenters specifically supported the use of a coding system (see, *e.g.*, Exs. 15: 146, 213, 260, 262, 265, 345, 347, 409).

OSHA shares these commenters' concern about the privacy of employees who seroconvert as the result of a bloodborne pathogens-related needlestick or sharps incident and finds that these incidents are clearly the type of non-minor occupational injury and illness Congress intended to be included in the OSHA recordkeeping system. If the Agency were to exclude these cases categorically from the records, it would not be meeting the requirements of the OSH Act to produce accurate statistics on occupational death, injury and illness.

The final recordkeeping rule addresses this issue by prohibiting the entry of the employee's name on the OSHA 300 Log for injury and illness cases involving blood and other potentially infectious material. Further, by requiring employers to record all needlestick and sharps incidents, regardless of the seroconversion status of the employee, coworkers and representatives who have access to the Log will be unable to ascertain the disease status of the injured worker. OSHA believes that the privacy concern case approach of the final rule obviates the need for a coding system because the case number assigned to the recorded injury will serve the purpose of a code, without adding additional complexity or burden. A discussion of access to the records is contained in the portion of the preamble associated with section 1904.35, Employee Involvement.

The College of American Pathologists objected to the inclusion of hepatitis C in the list of bloodborne pathogen diseases. They commented that ''the great majority of cases of hepatitis C lack any identifiable source of exposure. More cases of HCV infection occur among non-health care workers than among health care workers. To presume that an individual who is infected with

HCV acquired it on the job just because they work in a health care setting is unjustified'' (Ex. 15: 37). On the other hand, a commenter from Waukesha Memorial Hospital suggested that OSHA ''should include all blood borne pathogen disease that develops as a result of an exposure incident, not just HIV, Hep B, Hep C, even though those are the major players in a hospital setting. Since we must teach that there are many bloodborne pathogens, it doesn't make sense to me to only record some and not all'' (Ex. 15: 436). OSHA believes that hepatitis C cases should, like other illness cases, be tested for recordability using the geographic presumption that provides the principal rationale for determining work-relatedness throughout this rule. OSHA also agrees with the commenter from Waukesha Memorial Hospital that *all* bloodborne pathogen diseases resulting from events or exposures in the workplace should be recorded. Therefore, OSHA has modified the final regulatory text of paragraph 1904.8(b)(4)(i) to reflect this decision.

Section 1904.9 Additional Recording Criteria for Cases Involving Medical Removal Under OSHA Standards

The final rule, in paragraph 1904.9(a), requires an employer to record an injury or illness case on the OSHA 300 Log when the employee is medically removed under the medical surveillance requirements of any OSHA standard. Paragraph 1904.9(b)(1) requires each such case to be recorded as a case involving days away from work (if the employee does not work during the medical removal) or as a case involving restricted work activity (if the employee continues to work but in an area where exposures are not present.) This paragraph also requires any medical removal related to chemical exposure to be recorded as a poisoning illness.

Paragraph 1904.9(b)(2) informs employers that some OSHA standards have medical removal provisions and others do not. For example, the Bloodborne Pathogen Standard (29 CFR 1910.1030) and the Occupational Noise Standard (29 CFR 1910.95) do not require medical removal. Many of the OSHA standards that contain medical removal provisions are related to specific chemical substances, such as lead (29 CFR 1901.1025), cadmium (29 CFR 1910.1027), methylene chloride (29 CFR 1910.1052), formaldehyde (29 CFR 1910.1048), and benzene (29 CFR 1910.1028).

Paragraph 1904.9(b)(3) addresses the issue of medical removals that are not required by an OSHA standard. In some cases employers voluntarily rotate employees from one job to another to reduce exposure to hazardous substances; job rotation is an administrative method of reducing exposure that is permitted in some OSHA standards. Removal (job transfer) of an asymptomatic employee for administrative exposure control reasons does not require the case to be recorded on the OSHA 300 Log because no injury or illness—the first step in the recordkeeping process—exists. Paragraph 1904.9(b)(3) only applies to those substances with OSHA mandated medical removal criteria. For injuries or illnesses caused by exposure to other substances or hazards, the employer must look to the general requirements of paragraphs 1910.7(b)(3) and (4) to determine how to record the days away or days of restricted work.

The provisions of § 1904.9 are not the only recording criteria for recording injuries and illnesses from these occupational exposures. These provisions merely clarify the need to record specific cases, which are often established with medical test results, that result in days away from work, restricted work, or job transfer. The § 1904.9 provisions are included to produce more consistent data and provide needed interpretation of the requirements for employers. However, if an injury or illness results in the other criteria of § 1904.7 (death, medical treatment, loss of consciousness, days away from work, restricted work, transfer to another job, or diagnosis as a significant illness or injury by a physician or other licensed health care professional) the case must be recorded whether or not the medical removal provisions of an OSHA standard have been met.

The recording of OSHA mandated medical removals was not addressed in the 1996 recordkeeping proposal. OSHA has included the provisions of § 1904.9 in the final rule to address a deficiency noted by a number of commenters, and as a replacement for criteria that were contemplated for the recording of various ailments in proposed Appendix B (61 FR 4063–4065). For example, R. L. Powell, Personnel Safety Manager for Union Carbide Corporation, (Ex. 15: 396) asked about medical removal and restricted work:

> How does this criteria [restricted work] apply to ''medical removal?'' Medical removal is sometimes mandated by other OSHA standards under certain conditions. A similar technique may also be used by a physician to conduct controlled tests to assess the impact of workplace factors on a condition such as a chemical sensitivity.

A number of commenters recommended the use of medical removal criteria as the correct recording level for various substances listed in proposed Appendix B (see, *e.g.*, Exs. 22; 15: 113, 155, 192, 199, 213, 242, 262, 272, 303, 304, 307, 326, 338, 340, 349). Many of these commenters suggested the medical removal criteria as a substitute for the proposed recording levels for lead and cadmium (Ex. 22; 15: 113, 155, 192, 340, 349). For example, Newport News Shipbuilding (Ex. 15: 113) said:

> The proposed regulation requires recording lead and cadmium cases based on biological action levels rather than on the onset of illness. The purpose of the biological action level is to identify those employees who are at greater risk of reaching the limits for medical removal, so that onset of illness may be prevented. The use of biological action levels as the basis of defining and recording illness is inappropriate. Rather, lead and cadmium cases should be recorded when medical removal is required by the specific standard.

The Institute of Scrap Recycling Industries, Inc. (Ex. 15: 192) added:

> This [proposed] statement clearly subverts the clear intent of the OSHA lead standard that a blood lead level of 50 μg/100 g of whole blood and not 40 μg/100 g of whole blood is the criteria for medical removal and therefore also the criteria for documentation on the OSHA injury and illness log. Had the scientific evidence on which the OSHA lead standard was based pointed clearly to 40 μg/100 g of whole blood as the medical removal standard and therefore the standard for documentation on the OSHA injury and illness log the standard would have reflected this. Therefore it would clearly subvert the purpose and scope of the OSHA lead standard, that was based on scientific evidence and an exhaustive public comment period on the scientific data, to establish a clear benchmark for a recordable event on the injury and illness log without the benefit of supporting scientific study and data and a public comment period on such information.

The Institute of Scrap Recycling Industries, Inc is incorrect about the lead standard's determination of recording criteria on the OSHA injury and illness log. The lead standard (§ 1910.1025) does not specifically address the recording issue, but the lead standard does address the medical removal issue. The Institute points to the benefit of using medical removal criteria for recording purposes, and OSHA agrees that these criteria are useful for recordkeeping purposes. The medical removal provisions of each standard were set using scientific evidence established in the record devoted to that rulemaking. OSHA takes care when setting the medical removal provisions of standards to ensure that these provision reflect a material harm, *i.e.,* the existence of an abnormal condition that is non-minor and thus

worthy of entry in the OSHA injury and illness records.

Other commenters urged OSHA to use the medical removal criteria as a replacement for all of proposed Appendix B. (see, *e.g.*, Exs. 15: 199, 213, 242, 262, 303, 304, 307, 326, 338, 375). For example, Southern Nuclear Operating Company (Ex. 15: 242) stated that:

> Mercury, Lead, Cadmium, Benzene: In these cases, it is appropriate to distinguish between biological markers that merely point to exposure versus those that relate to illness or disease. All of the recordability criteria for these substances are based on various ''action'' levels stated in their respective OSHA regulations. Southern Nuclear Operating Company believes that the appropriate criteria for recording these cases as illnesses should be the ''medical removal'' criteria stated in their respective regulations coupled with a physician's diagnosis of disease rather that the ''action'' levels as stated in the proposal. These ''medical removal'' criteria are more indicative of disease or illness. If the ''action'' levels for these substances are used as the recording criteria, the number of illnesses recorded on the OSHA log would more accurately reflect the numbers of workers covered by a given exposure control program as opposed to the number of illnesses that result from an inadequate program.

The American Petroleum Institute (API) argued that:

> API incorporates in its recommended Appendix B the recording of cases when medical removal is required by a specific OSHA standard. API concedes this is inconsistent with the concept of ''serious or significant''—and inconsistent with API's fundamental belief that actions by employers to prevent cases from becoming serious should not be recorded—because such medical removals are by design preventive; that is, intended to occur before a case becomes serious. However, API acknowledges that it is extremely difficult to define and get substantial agreement on any straight-forward and verifiable criteria when such cases are indeed ''serious''. Therefore, API has decided to recommend the medical-removal criterion for Appendix B as the best on-balance solution for situations involving toxic substance adsorption. (Ex. 15: 375)

A number of commenters opposed the use of mandatory medical removal levels for injury and illness recording purposes (see, *e.g.*, Exs. 25; 15: 146, 193, 258, 261, 304, 305, 318, 346, 358). Many argued that the OSH Act did not support the use of medical removals (see, *e.g.*, Exs. 25; 15: 258, 261, 304, 358). For example, the National Association of Manufacturers (NAM) commented:

> There is no reference in Section 24(a) or Section 8(c)(2) of the OSH Act to recording exposure incidents that do not result in disabling, serious or significant injuries or illnesses; or is there any reference in those sections to medical removal provisions or other action levels that do not result in disabling, serious or significant injuries or illnesses. On the other hand, Section 8(c)(3) does discuss—as a separate component of OSHA's occupational safety and health statistics program—maintaining records of employee exposures to toxic materials and harmful physical agents pursuant to standards issued under Section 6 of the OSH Act.
>
> This is a rulemaking about the statistical program for tracking disabling, serious or significant injuries and illnesses—nothing more and nothing less. We believe Congress determined that those are the criteria that OSHA should utilize for this particular component of its statistical program. A statistical program that aggregates disabling, serious or significant injuries and illnesses with other conditions and exposure incidents, is contrary to both the congressional directive and the goal of this recordkeeping system.

While these commenters are correct in noting that the OSH Act does not specifically address medical removal levels and whether or not cases meeting these levels should be recorded, the Act also does not exclude them. The Act does require the recording of injuries and illnesses that result in ''restriction of work or motion'' or ''transfer to another job.'' OSHA finds that cases involving a mandatory medical removal are cases that involve serious, significant, disabling illnesses resulting in restriction of work and transfer to another job, or both. These medical restrictions result either in days away from work (form of restriction) or days when the worker can work but is restricted from performing his or her customary duties.

Other commenters objected to recording medical removals because they are precautionary in nature (Ex. 15: 146, 193, 258, 261, 305, 318, 346). The American Foundrymen's Society, Inc. (Ex. 15: 346) argued that:

> An abnormally high level of a toxic material in an individual's blood (*e.g.*, a lead level at or above the action level or the level requiring ''medical removal'' under OSHA's Lead Standard) is not and should not, in itself, be considered a recordable injury or illness. A preventive or prophylactic measure such as medical removal (as opposed to a restorative or curative measure) is not and should not be deemed medical treatment, a job transfer or restricted activity for purposes of recordability in the absence of a diagnosis of a substantial impairment of a bodily function.

As stated previously, a ''diagnosis of substantial impairment of a bodily function'' is not required for a case to meet OSHA recordkeeping criteria, nor is it a limitation to recordability under the OSH Act. Many injuries and illnesses meet the recording criteria of the Act but lack diagnosis of a substantial impairment of a bodily function. Although the medical removal provisions are included in OSHA's standards to encourage participation in the medical program by employees and to prevent progression to serious and perhaps irreversible illness, they also reflect illnesses caused by exposures in the workplace and are thus themselves recordable. The workers are being removed not only to prevent illness, but to prevent further damage beyond what has already been done. Thus OSHA does not agree that medical removal measures are purely preventive in nature; instead, they are also remedial measures taken when specific biological test results indicate that a worker has been made ill by workplace exposures.

OSHA has therefore included section 1904.9 in the final rule to provide a uniform, simple method for recording a variety of serious disorders that have been addressed by OSHA standards. The § 1904.9 provisions of the final rule cover all of the OSHA standards with medical removal provisions, regardless of whether or not those provisions are based on medical tests, physicians' opinions, or a combination of the two. Finally, by relying on the medical removal provisions in any OSHA standard, section 1904.9 of the final rule establishes recording criteria for future standards, and avoids the need to amend the recordkeeping rule whenever OSHA issues a standard containing a medical removal level.

Section 1904.10 Recording Criteria for Cases Involving Occupational Hearing Loss

The recording criteria employers should use to record occupational hearing loss on the OSHA recordkeeping forms have been an issue since OSHA first proposed to require hearing conservation programs for general industry employers (39 FR 37775, October 24, 1974). Job-related hearing loss is a significant occupational safety and health issue because millions of workers are employed in noisy workplaces and thousands of workers experience noise-induced hearing loss each year. Noise-induced hearing loss is a serious and irreversible condition that may affect the safety and well-being of workers for the rest of their lives.

For the nation as a whole in 1997, the BLS reported only 495 cases of occupational hearing loss resulting in days away from work (http://stats.bls.gov/case/ostb0684.txt; BLS Characteristics Data Table R15 of 04/22/1999). Hearing loss is not the type of occupational injury or illness that typically requires days away from work for recuperation, as is often the case for

a fracture, fall, or carpal tunnel syndrome case. OSHA believes that there are many cases of hearing loss—probably numbering in the thousands—that occur every year as a result of job-related noise exposure but do not result in days away from work and are thus not captured in the BLS statistics. Because these hearing losses are often permanent, a large number of Americans, both working and retired, are currently suffering the effects of hearing loss due to occupational exposure.

The changes being made to the OSHA 300 form in the final rule will improve the quality of the data collected nationally on this important occupational condition by providing consistent hearing loss recording criteria, thus improving the consistency of the hearing loss statistics generated by the BLS occupational injury and illness collection program. National hearing loss statistics will also be improved because OSHA has added a column to the OSHA 300 Log that will require employers, for the first time, to separately collect and summarize data specific to occupational hearing loss. These changes mean that the BLS will collect hearing loss data in future years, both for cases with and without days away from work, which will allow for more reliable published statistics concerning this widespread occupational disorder.

Paragraph 1904.10(a) of the final rule being published today requires an employer to record an employee's hearing test (audiogram) result if that result reveals that a Standard Threshold Shift (STS) for that employee has occurred. If the employee is one who is covered by the medical surveillance requirements of OSHA's Occupational Noise standard (29 CFR 1910.95), compliance with the standard will generate the information necessary to make recording decisions.

If the employee is not covered by the 29 CFR 1910.95 noise standard, OSHA rules do not require the employer to administer baseline or periodic audiograms, and the 1904 rule does not impose any new requirements for employers to obtain baseline information where it is not already required. However, some employers conduct such tests and acquire such information for other reasons. If the employer's workplace is a high noise environment (i.e., has noise levels that exceed 85 dBA) and the employer has the relevant audiogram information for an employee, the employer must record any identified work-related hearing loss equal to or greater than an OSHA-defined STS on the Log. This means that an employer in the construction industry, for example, who is aware that his or her work activities regularly generate high noise levels and who has audiometric data on the hearing level of the employees exposed to those noise levels must record on the Log any STS detected in those workers. OSHA believes that this approach to the recording of work-related hearing loss cases among these workers not covered by the noise standard is appropriate because it is reasonable, protective, and administratively straightforward.

Paragraph 1904.10(b)(1) of the final rule defines an STS as that term is defined in the Occupational Noise Standard: as a change in an employee's hearing threshold, relative to the baseline audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 hertz in one or both ears. The Noise standard, at paragraph 1910.95(c)(1), describes the employees in general industry who are covered by the required hearing conservation program as follows:

> The employer shall administer a continuing, effective hearing conservation program, as described in paragraphs (c) through (o) of this section, whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent. For purposes of the hearing conservation program, employee noise exposures shall be computed in accordance with appendix A and Table G–16a, and without regard to any attenuation provided by the use of personal protective equipment.

Paragraph 1904.10(b)(2) of the final recordkeeping rule directs employers how to determine whether a recordable STS has occurred. The paragraph deals with two situations: (1) where the employee has not previously experienced such a hearing loss, and (2) where the employee has experienced a past recordable hearing loss. If the employee has never previously experienced a recordable hearing loss, the employer must compare the results of the employee's current audiogram with the employee's baseline audiogram, if the employee has a baseline audiogram. The employee's baseline audiogram could either be that employee's original baseline audiogram or a revised baseline audiogram adopted in accordance with paragraph (g)(9) of 29 CFR 1910.95. For employees who have not previously had a recordable hearing loss with that employer, the loss in hearing is computed using the preemployment hearing test result so that any hearing loss the employee may have experienced before obtaining employment with the employer is not attributed to noise exposure in that employer's workplace.

If the employee has previously experienced a recordable hearing loss, the employer must compare the employee's current audiogram with the employee's revised baseline audiogram (i.e., the audiogram reflecting the prior recorded hearing loss). For employees who have had a previously recordable hearing loss with that employer, the final recordkeeping rule thus ensures that the employer does not record the same case of hearing loss twice, but that if a second STS occurs, the employer will record that additional hearing loss.

Paragraphs 1904.10(b)(3) and (4) of the final rule allow the employer to take into account the hearing loss that occurs as a result of the aging process and to retest an employee who has an STS on an audiogram to ensure that the STS is permanent before recording it. The employer may correct the employee's audiogram results for aging, using the same methods allowed by the OSHA Noise standard (29 CFR 1910.95). Appendix F of § 1910.95 provides age correction for presbycusis (age-induced hearing loss) in Tables F–1 (for males) and F–2 (for females). Further, as permitted by the Noise standard, the employer may obtain a second audiogram for employees whose first audiogram registers an STS if the second audiogram is taken within 30 days of the first audiogram. The employer may delay recording of the hearing loss case until the STS is confirmed by the second audiogram and is, or course, not required to record the case if the second audiogram reveals that the STS was not permanent.

Paragraph 1904.10(b)(5) of the final rule establishes how employers are to determine the work-relatedness of hearing loss cases. This paragraph specifies that, in accordance with the recordkeeping rule's definition of work-relationship, hearing loss is presumed to be work-related for recordkeeping purposes if the employee is exposed to noise in the workplace at an 8-hour time-weighted average of 85 dB(A) or greater, or to a total noise dose of 50 percent, as defined in 29 CFR 1910.95. (Noise dose is defined as the amount of actual employee exposure to noise relative to the permissible exposure limit for noise; a dose greater than 100% represents exposure above the limit.) For hearing loss cases where the employee is not exposed to this level of workplace noise, or where the employee is not covered by the Occupational Noise standard, the employer must use the rules set out in § 1904.5 to determine if the hearing loss is to be

considered work related for recordkeeping purposes.

Paragraph 1904.10(b)(6) allows the employer not to record a hearing loss case if physician or other licensed health care professional determines that the hearing loss is not work-related or has not been aggravated by occupational noise exposure. This provision is consistent with the Occupational Noise standard, and it allows the employer not to record a hearing loss case that is not related to workplace events or exposures; examples of such cases are hearing loss cases occurring before the employee is hired or those unrelated to workplace noise.

The recordkeeping provisions in section 1904.10 of the final recordkeeping rule thus match the provisions of the Occupational Noise standard by (1) covering the same employers and employees (with the exception of cases occurring among employees not covered by that standard whose employers have audiometric test results and high-noise workplaces); (2) using the same measurements of workplace noise; (3) using a common definition of hearing loss, i.e., the STS; (4) using the same hearing loss measurement methods; (5) using the same definitions of baseline audiogram and revised baseline audiogram; (6) using the same method to account for age correction in audiogram results; and (7) allowing certain temporary threshold shifts to be set aside if a subsequent audiogram demonstrates that they are not permanent or a physician or other licensed health care professional finds they are not related to workplace noise exposure.

The Former Rule

The regulatory text of OSHA's former recordkeeping rule did not specifically address the recording of hearing loss cases, and the § 1910.95 Occupational Noise Standard does not address the recording of hearing loss cases on the OSHA Log. However, the 1986 *Recordkeeping Guidelines* provided clear advice to employers to the effect that work-related hearing loss was a recordable disorder, that it could be either an injury or illness, depending on the events and exposures causing the hearing loss, and that all hearing loss illnesses were required to be recorded, regardless of the industry in which the employer worked (Ex. 2, p. 4). However, the *Guidelines* did not provide specific guidance on the kinds of hearing test or audiogram results that would constitute a recordable, work-related hearing loss.

In 1990, OSHA considered issuing a Compliance Directive addressing the recording of hearing loss cases on employers' OSHA 200 Logs, but decided that the issue of the recording of hearing loss cases should be addressed through notice-and-comment rulemaking at the time of the revision of the recordkeeping rule. To address this topic in the interim before the final recordkeeping rule was issued, OSHA sent a memorandum to its field staff (June 4, 1991) to clarify its enforcement policy on the recording of occupational hearing loss and cumulative trauma disorders on the OSHA 200 Log, on the grounds that these cases ''have received national attention and require immediate clarification.'' The memorandum specified that ''OSHA will issue citations to employers for failing to record work related shifts in hearing of an average of 25 dB or more at 2000, 3000, and 4000 hertz (Hz) in either ear on the OSHA 200 Log.'' The interim enforcement policy was intended to provide a conservative approach to the issue until the recordkeeping rulemaking was completed. The interim policy stated that ''The upcoming revision of the recordkeeping regulations, guidelines and related instructional materials will address the recordability criteria for all work related injuries and illnesses.'' The memo also mentioned the use of standard threshold shifts (STS) results, saying:

> Employers are presently required by 29 CFR 1910.95 to inform employees in writing within 21 days of the determination of a Standard Threshold Shift (an average of 10 dB or more at 2000, 3000 and 4000 Hz in either ear) and to conduct specific follow-up procedures as required in paragraph (g) of the standard. Employers should be encouraged to use this information as a tracking tool for focusing noise reduction and hearing protection efforts.

The Proposal

The proposed recordkeeping criterion for recording a case of hearing loss (61 FR 4064) was an average shift of 15 decibels (dB) or more at 2000, 3000, and 4000 hertz in one or both ears after the employee's hearing loss had been adjusted for presbycusis (age-related hearing loss). OSHA proposed to permit employers to delete the record of the hearing loss injury or illness if a retest performed within 30 days indicated that the original shift was not permanent. Once a 15 dB work-related shift had occurred, however, OSHA proposed that the employee's baseline audiogram (for recordkeeping purposes) be adjusted to reflect that loss. A subsequent audiogram would have to reveal an additional 15 dB shift from the new or revised baseline value to be considered a new hearing loss injury or illness. OSHA proposed to presume work-relationship if an employee was exposed on the job to an 8-hour time-weighted average noise level equaling 85 dB(A) (61 FR 4064).

OSHA also raised several issues related to hearing loss recording in the proposal (61 FR 4064):

> The lowest action level in the noise standard is an average shift of 10 decibels or more at 2000, 3000 and 4000 hertz. OSHA is proposing the 15 decibel criteria for recordkeeping purposes to account for variations in the reliability of individual audiometric testing results.
>
> OSHA asks for input on which level of a shift in hearing should be used as a recording criteria; 10 decibels? 20 decibels? 25 decibels? For each level, what baseline should be used? Preemployment (original) baseline? Audiometric zero? Is adjusting for presbycusis appropriate?

Comments on the Proposal

OSHA's proposed recording criterion for hearing loss received more comments than the proposed criterion for any other type of injury or illness other than musculoskeletal disorders. The hearing loss comments cover a wide variety of issues, including which hearing test results should or should not be considered an OSHA recordable illness, the choice of baseline audiograms, retesting and persistence of hearing loss, determining work relatedness, the appropriateness of correcting audiograms for aging (presbycusis), and the role of physicians and other licensed health care professionals in the determination of recordable hearing loss cases. The issues raised by commenters are organized by topic and discussed below.

The Definition of Recordable Hearing Loss

There was limited support among commenters for OSHA's proposed 15 dB shift recording criterion (see, *e.g.*, Exs. 15: 50, 61, 84, 111, 113, 156, 188, 233, 281, 289, 349, 407). However, many of these commenters supported the use of a 15 dB shift as the recording criterion only if the final recordkeeping rule also reflected other changes, such as eliminating the correction for aging (see, *e.g.*, Exs. 15: 50, 188, 407) or limiting the recording of hearing loss to one case per worker per lifetime (Ex. 15: 349). For example, General Electric (Ex. 15: 349) suggested limiting the recording of hearing loss to one case per employee:

> GE supports recording an average standard threshold shift of 15 decibels (dB) or more at 2000, 3000, and 4000 hertz in one or both ears, adjusted for presbycusis and with a deletion upon retest as described. The establishment of the recording criteria at a level slightly higher than STS requiring action in the noise standards allows the

employer the opportunity to take action before the STS progresses to a recordable injury. GE recommends, however, that, to reduce the administrative burden, the baseline not be revised after the shift, that the original baseline be maintained and the hearing loss only be recorded on the initial occasion of the 15 dB shift.

George R. Cook and Omar Jaurez, occupational audiologists (Ex. 15: 50), supported the 15dB level only if no adjustment for aging was allowed:

[t]he Noise Standard has two loopholes in the identification of STS. First it allows for revision of baseline when the loss is persistent. The Standard does not identify persistence and it is possible to revise a baseline early and subsequent STSs would be postponed. The second loophole is the allowance of presbycusis which hides changes in hearing. Therefore, a criteria which separates the recording criteria from STS and protects the required STS follow-up is necessary. A 20 or 25 dB criteria is felt to be too much change.

Most of the commenters, however, did not support the proposed 15 dB criterion (see, *e.g.*, Exs. 22; 26; 15: 25, 45, 108, 110, 119, 137, 146, 154, 171, 177, 201, 203, 213, 218, 246, 251, 262, 278, 295, 310, 329, 331, 334, 343, 347, 348, 350, 358, 369, 394, 396, 405, 424). Most of these commenters recommended a recording criterion of a 25 dB shift, i.e., the criterion used in OSHA's interim enforcement policy (see, *e.g.*, Exs. 22; 15: 45, 119, 137, 146, 154, 171, 177, 201, 203, 218, 246, 262, 278, 329, 331, 334, 343, 348, 358, 395, 424). Con Edison wrote ''[l]owering the dB shift criteria to 15 dB [from 25 dB] would result in recording cases which do not meet the clinical definition of hearing loss'' (Ex. 15: 213), and the Amoco Corporation testified that OSHA should ''[r]aise the hearing loss limit to a more appropriate indication of material impairment'' (Ex. 22). The American Iron and Steel Institute (Ex. 15: 395) commented:

The appropriate recording trigger should be the loss of hearing recognized by the American Medical Association (AMA) as the lowest indicator of any material impairment to the employee's hearing. According to the AMA, a person has suffered material impairment when testing reveals a 25 dB average hearing loss from audiometric zero at 500, 1000, 2000, and 3000 hertz. OSHA itself has recognized that this is the lowest level of hearing loss that constitutes any material hearing impairment. see 46 Fed. Reg. 4083 (Jan. 18, 1981). Below that level, an employee has suffered no noticeable injury or illness.

The American Iron and Steel Institute disagreed that a 10 or a 15 dB shift in hearing should be recorded, stating that ''While a 15 dB shift is arguably closer to a serious injury than a 10 dB shift, neither is a principled approximation of the onset of any disabling illness or injury, and each is inconsistent with OSHA's acknowledgment in Forging Indus. Ass'n v. Secretary of Labor, 773 F.2d 1436, 1447 n.18 (4th Cir. 1985), that no injury results until a person experiences a 25 dB loss.'' (OSHA does not agree with this characterization of its position.)

Similarly, the Monsanto Company commented ''OSHA acknowledges in the Hearing Conservation Amendment Standard that STS will occur and nothing is required to be done to prevent it from occurring. Therefore, it cannot be a measure of significantly impaired functional hearing capacity. In the preamble to this rule, OSHA cites several excerpts of testimony supporting this position'' (Ex. 15: 295).

Vulcan Chemicals commented that it ''believes the present requirement [of a hearing level shift of 25 dB for recordkeeping] is protective and recommends that the recordable criteria should remain at 25 decibels'' (Ex. 15: 171). New England Power justified its support for a 25 dB shift as the recording criteria with the comment that there ''is far too much variability with an individual subject and the equipment to ensure accuracy'' (Ex. 15: 170), and Tosco, arguing in a similar vein, commented that the ''existing 25 dB shift provides an easily identifiable measurement for determining injuries, and also provides for variation in background noise during testing, variability of the employee's health/hearing capability on the day being tested, as well as variation in the employee's home/social lifestyle which may contribute to hearing loss'' (Ex. 15: 246). The Can Manufacturers Institute commented that a 25 dB shift criterion ''would identify as consequential change in hearing acuity that is irreversible and minimize multiple recording of change over time'' (Ex. 15: 331).

There was also support in the rulemaking record for using a 20 dB shift as a criterion for recording hearing loss (see, *e.g.*, Exs. 15: 108, 295, 396, 405, 423). Most of the reasons given for supporting this level were the same as those provided as support for a 25 dB shift recording criterion. For example, the Westinghouse Electric Corporation commented that a ''20 decibel shift would not only allow for variances in individual audiometric tests, but would also allow for the fact that workplace noise levels are quite often more controlled and less severe than noise levels in the home environment (*e.g.*, trap shooting, stereo sound levels, lawn mowing, and other types of non job-related activities)'' (Ex. 15: 405). Commenting that a 20 dB shift is two times the action level of a 10 dB shift prescribed by OSHA's Occupational Noise standard (29 CFR 1910.95), Brown and Root, Inc. suggested that this level ''would allow for a program to be initiated [at the action level] and working before a case becomes recordable. If the program, however, is not as effective as desired, the recordable level would require that the case be logged'' (Ex. 15: 423). Finally, Union Carbide Corporation argued that using a 20 dB shift as a recording criterion.

[i]s in the direction of simplicity since this is an even multiple of 10 dB, which is the standard threshold shift and the action level for triggering certain hearing conservation requirements. Having an even multiple makes it much easier to track two different baselines one for the hearing conservation requirements and one for recordkeeping requirements. Our experience has shown that it is an administrative nightmare to track 10 dB baselines for hearing conservation and 25 dB baselines for recordkeeping (Ex. 15: 396).

Industrial Health, Inc. (Ex. 15: 84), a mobile audiometry vendor, supported either a 10 dB or 15 dB persistent shift as the recording criterion and provided an analysis, using their data base of over 4 million audiograms. Their comments on the merits of the 10 dB and 15 dB options, and whether each change is significant and noise related, are:

Noise relatedness: Using the OSHA shift formula across 2, 3 & 4 KHz (including OSHA's corrections for aging), a persistent shift of either 10dB or 15dB shows a strong correlation with audiogram patterns typical of exposure to noise (our samples showed more than 85 percent of such shifts appeared to be noise related, and most of the remainder had been flagged by the reviewing audiologist as either medical referrals or cases where the employee had given a medically related explanation for the shift in hearing). Hence, we conclude that a persistent shift based on the OSHA shift formula with age correction, whether 10 dB or 15 dB, is a reasonably accurate indication of a hearing change due to noise exposure provided that medically related shifts are excluded.

Significance of change: We calculated historic shifts based on both a 10 dB shift and a 15 dB shift on a sample industrial database. The following results are for persistent shifts only. The results showed that 15 dB shifts occurred less often than 10 dB shifts (as would be expected), with approximately 70% as many 15 dB shifts as 10 dB shifts. When both shifts occurred for an employee, most (over 80%) of the 15 dB shifts occurred at exactly the same test dates as did the 10 dB shifts, although in some cases (less than 20%) the 15 dB shifts occurred at later times. In general, the agreement was surprisingly good—much better than we had expected. In most (about 80%) of the instances where a 10 dB shift occurred but a 15 dB shift did not,

the significance of the 10 dB shift was questionable when the actual data were examined. Less than 5% of what we judged to be significant 10 dB shifts were missed by the 15 dB rule.

As a result, our analysis indicates the following (based again on all shifts having been demonstrated to be persistent):

a. A persistent 10 dB shift with age correction is a reasonably good yardstick for significant change due to noise, although it does flag some changes which are of questionable significance (perhaps as high as 20% of the shifts).

b. A persistent 15 dB shift with age correction is a better yardstick for significant change due to noise. In our tests it produced roughly 70 percent as many shifts as the 10 dB rule, but the difference was largely 10 dB shifts of questionable significance. It did report some changes later than the 10 dB rule and missed a few shifts (about 5%) which we judged to be of significance.

Finally, there was strong support in the rulemaking record for using a 10 dB shift (also identified as a standard threshold shift or STS in the OSHA Noise standard) as a recording criterion for hearing loss (see, *e.g.*, Exs. 26; 42; 15: 25, 110, 251, 310, 347, 350, 369, 394). For example, the American College of Occupational and Environmental Medicine noted that the ''STS is the earliest reliable indication of measurable hearing loss for practical purposes. This is the earliest practical level of early detection and prevention of further loss is quite possible if the correct measures are taken'' (Ex. 15: 251). The Ford Motor Company agreed. Commenting that it currently records any work-related hearing loss that results in an average loss of 10 dB or more, the company noted that ''[r]ecording hearing loss in its early stage provides Ford the information to correct hazardous conditions and prevent serious impairment to an employee'' (Ex. 15: 347). Ford further stated that its ''method of recording occupational hearing loss is consistent with the requirement of the Hearing Conservation Amendment which requires notification to the employee.'' The Laborer's Health and Safety Fund of North America also pointed out the inconsistency between OSHA's proposed recording criterion in the recordkeeping rule and the criterion in OSHA's occupational noise exposure standard. The Fund commented:

''The noise standard defines a 10 dB shift at 2, 3, and 4K as a standard threshold shift and allows a revision of the baseline should the shift persist. Along comes the recordkeeping rule which says that a 15 dB shift is recordable, and a baseline revision (for recordkeeping purposes) can be made when a 15 dB shift occurs. This situation is an administrative nightmare. It is possible that a hearing loss will never be recordable because the 'baseline' is revised at a 10 dB shift. To avoid this situation, an employer would have to establish 2 different baselines, one for the noise standard provisions, and one for the recordkeeping rule provisions. This situation is unacceptable. We recommend that standard threshold shifts of 10 dB be used as the recordability criteria, since it is consistent with the 1910.95 noise standard'' (Ex. 15: 310).

The Coalition to Preserve OSHA and NIOSH and Protect Workers' Hearing (Exs. 26, 42) recommended a recording policy that would capture instances of age-corrected STS, as defined in the OSHA noise standard, that are confirmed as persistent and that are determined to be work-related. The Coalition's comments are of particular interest because its members include professional and scientific organizations dedicated to the issue of studying and preventing hearing loss. Member associations include the American Speech-Language-Hearing Association, the American Industrial Hygiene Association, the National Hearing Conservation Association, the Acoustical Society of America, the Council for Accreditation in Occupational Hearing Conservation, Self Help for Hard of Hearing People, Inc. and the Institute for Noise Control Engineering. These groups represent well over 100,000 audiologists, acousticians, speech-language pathologists, industrial hygienists, safety and health professionals, and persons with hearing loss (Ex. 42, page 1).

The Coalition provided the following reasons for relying on a 10 dB shift in hearing as an OSHA recordable condition (Ex. 42, pp. 9–13).

1. An allowance in the recording criteria for test-retest variability is inappropriate (i.e. OSHA proposed the 15 dB criterion rather than the 10 dB criterion ''to account for variations in the reliability of individual audiometric results.''
2. An age-corrected STS is a large hearing change that can affect communicative competence.
3. Typical occupational noise exposures do not justify a larger shift criterion.
4. Recording OSHA STSs reduces the recordkeeping burden to industry.
5. Current OSHA STS rates are not high.
6. Recording OSHA STSs will promote effective hearing conservation programs.

Other commenters proposed still other criteria for recording hearing loss. For example, Detroit Edison stated that a shift in hearing level should not be used as a recording criterion for hearing loss because this ''is not indicative of an illness or injury, but only an indication that someone has had a slight change in their ability to hear'' and proposed instead that ''the level of hearing impairment should be used in recording hearing losses versus a threshold shift as compared to a baseline'' (Ex. 15: 377). OSHA does not agree with this commenter, however, because, as the record in the Noise standard rulemaking indicates, permanent threshold shifts do indicate a non-minor impairment, although not all STSs are disabling.

As is the case for many OSHA rules, the 1981 Noise standard was challenged in the courts, which stayed several provisions. In 1983, OSHA revised the hearing conservation amendment to revoke many of the provisions stayed by the court, lift an administrative stay implemented by OSHA, and make technical corrections (48 FR 9738). One of those provisions involved the definition of STS, which was renamed a ''standard'' rather than ''significant'' threshold shift to help differentiate the two separate methods used to calculate the STS in the 1981 and 1983 rules. Although OSHA changed the calculation method used to establish an STS in 1983, the role and importance of the STS concept in the context of a hearing conservation program was unchanged. The main reason for changing the definition of STS in the 1983 standard was to simplify the original calculation and address the concerns of employers and audiology professionals who wished to avoid using a computer to calculate an STS. The standard requires employers to take follow-up actions when an STS is identified, notify the affected employee, evaluate and refit hearing protectors, retrain the employee, and, if necessary, refer the employee for medical evaluation.

The arguments put forward by the Coalition to Preserve OSHA and NIOSH and Protect Workers' Hearing (Exs. 26, 42) are, in OSHA's view, compelling reasons for requiring employers to record on their Logs any case of work-related hearing loss that reaches the level of an STS. OSHA is particularly persuaded by the Coalition's argument that ''An age-corrected STS is a large hearing change that can affect communicative competence'' because an age-corrected STS represents a significant amount of cumulative hearing change from baseline hearing levels. In the words of the Coalition, ''For an individual with normal hearing on the baseline audiogram, STS usually involves age-corrected shifts of 15–20 dB at 3000 and 4000 Hz. For an individual with pre-existing high-frequency hearing loss on the baseline, STS usually involves substantial progression of the hearing loss into the critical speech frequencies. The absolute shift values before age corrections are

considerably larger.'' The Coalition also stressed that the method of averaging hearing loss at several frequencies, as is required to determine an STS under the OSHA Noise standard, tends to ''obscure the large hearing shifts at individual frequencies which usually occur before the average changes by a specified amount'' (Ex. 42, p. 10).

OSHA has rejected, for recordkeeping purposes, the use of the 25 dB shift from audiometric zero prescribed by the American Medical Association Guidelines for Material Impairment. The AMA's 25 dB criterion is intended to be used to determine the level at which the employee should be compensated for hearing loss-related medical bills or lost time. In the context of occupational noise exposure, hearing loss of this magnitude reflects a serious impairment of health or functional capacity. As discussed in the Legal Authority section, however, the Congress intended the OSHA recordkeeping system to capture all non-minor occupational injuries and illnesses, and OSHA believes that an STS loss of hearing represents such an injury. An STS is an abnormal condition that should be recorded because it represents a material loss in hearing ability, beyond the normal effects of aging.

OSHA has also rejected the 15 dB and 20 dB shift recording options, for several reasons. First, although OSHA suggested in the proposal that an additional 5 dB beyond the 10-dB STS shift was needed to account for variability in testing, this has not been supported by the record. As the Medical Educational Development Institute (Ex. 15: 25) stated: ''[t]est/re-test reliability of 5 dB is well established in hearing testing. For example, the Council on Accrediting Occupational Hearing Conservationists maintain this range of reliability in their training guidelines and this is recognized in American National Standard Method for Manual Pure-Tone Threshold Audiometry, S3.21—1978 (R1992).''

The Coalition to Preserve OSHA and NIOSH and Protect Workers' Hearing (Ex. 26) provided additional justification for dropping the proposed rule's 5 dB reliability margin: ''The allowance for a retest (or even multiple retests) should largely eliminate spurious shifts due to measurement error in audiometry. In fact, one of OSHA's original reasons for choosing a frequency-averaged shift (the OSHA STS) as a trigger level for employee follow-up was that the frequency averaging process reduces the influence of random audiometric variability.'' Because reliance on a frequency-averaged rather than single frequency shift increases the reliability of audiometric measurements, OSHA has not adopted NIOSH's recommendation that the hearing loss criterion should be a 15 dB shift at *any* frequency (Ex. 15: 407). Single frequency calculations are less reliable and may therefore lead to the under- or over-recording of hearing loss cases compared with the STS method of averaging loss over several frequencies.

In the final recordkeeping rule, OSHA has chosen to use the Occupational Noise standard's STS—an average shift in either ear of 10 dB or more at 2000, 3000, and 4000 hertz—as the shift in hearing that must be recorded by an employer on the OSHA log as a hearing loss case. An STS clearly represents a non-minor injury or illness of the type Congress identified as appropriate for recordkeeping purposes. The final rule allows the employer to adjust an employee's hearing test results for presbycusis (age), to retest within 30 days (the employer is not required to record if there is a retest within 30 days and the retest refutes the original test), and to have the test results evaluated by a physician or other licensed health care professional. Using the STS as the recording criterion also meets one of the primary purposes of this rulemaking, to improve the simplicity of the overall recordkeeping system. Relying on the Noise standard's STS shifts avoids the complexity referred to by many commenters (see, *e.g.*, Exs. 15: 310, 396) of maintaining multiple baselines for the Noise standard and the OSHA recordkeeping rule. As the Laborers' Health & Safety Fund of North America (Ex. 15: 310) commented:

> The noise standard defines a 10 dB shift at 2,3, and 4K as a standard threshold shift and allows a revision of the baseline should the shift persist. Along comes the recordkeeping rule which says that a 15 dB shift is recordable, and a baseline revision (for recordkeeping purposes) can be made when a 15 dB shift occurs. This situation is an administrative nightmare. It is possible that a hearing loss will never be recordable because the baseline is revised at a 10 dB shift. To avoid this situation, an employer would have to establish 2 different baselines, one for the noise standard provisions, and one for the recordkeeping rule provisions. This situation is unacceptable. We recommend that standard threshold shifts of 10 dB be used as the recordability criteria, since it is consistent with the 1910.95 noise standard.

Several commenters (see, *e.g.*, Exs. 15: 295, 395) argued that OSHA itself had discounted the significance of the 10 dB STS during the 29 CFR 1910.95 rulemaking. OSHA disagrees with this assessment of the Agency's position on the importance of an STS. In the 1981 preamble to the Hearing Conservation Amendment, OSHA found that a 10 dB shift in hearing threshold is significant because it is outside the range of audiometric error and ''it is serious enough to warrant prompt attention'' (46 FR 4144). The 1983 preamble reinforces these findings. It states that:

> Correctly identifying standard threshold shifts will enable employers and employees to take corrective action so that the progression of hearing loss may be stopped before it becomes handicapping. Moreover, a standardized definition of STS will ensure that the protection afforded to exposed employees is uniform in regard to follow-up procedures. * * *
>
> OSHA reaffirms its position on the ideal criterion for STS which was articulated in the January 16, 1981 promulgation (see 46 FR 4144). The criterion must be sensitive enough to identify meaningful changes in hearing level so that follow-up procedures can be implemented to prevent further deterioration of hearing but must not be so sensitive as to pick up spurious shifts (sometimes referred to as ''false positives''). In other words, the criterion selected must be outside the range of audiometric error (48 FR 9760).

The Fourth Circuit rejected an employer's argument that a 10 dB shift in hearing threshold is insignificant. In its decision upholding OSHA's use of a 10 dB STS as an action level in the Hearing Conservation Amendment, the court found that:

> [t]he amendment is concerned with protecting workers before they sustain an irreversible shift. Consequently, it was incumbent upon the Agency to select a trigger level that would protect workers by providing an early warning yet not to be so low as to be insignificant or within the range of audiometric error. We find that the Agency struck a reasonable balance between those concerns. * * *

Forging Indus. Ass'n v. *Secretary of Labor,* 773 F.2d 1436, 1450 (1985)(en banc).

OSHA believes that many of the reasons stated in the 1983 preamble make the STS an appropriate recording criterion for recordkeeping purposes. For example, employers are familiar with the STS definition, which is also sensitive enough to identify a non-minor change in hearing. Use of the STS also reduces the confusion that would arise were OSHA to require employers to maintain two baselines: one required by the Occupational Noise standard and one required for recordkeeping purposes.

Baseline Audiogram

In its proposal, OSHA also asked for comment on which baseline should be used as the starting point in determining recordable hearing loss. There was strong support in the record for using

the preemployment or original baseline for this purpose (see, *e.g.*, Exs. 26; 15: 25, 50, 78, 108, 110, 111, 113, 146, 154, 163, 181, 188, 218, 233, 262, 281, 295, 308, 348, 354, 402, 405), although a few commenters proposed using audiometric zero (see, *e.g.*, Ex. 15: 395). One commenter proposed that the reviewing professional should determine the appropriate baseline on a case-by-case basis (Ex. 15: 175), and another proposed that an audiologist should determine when a change in baseline audiograms is warranted (Ex. 15: 203). Some commenters supported adjusting the employee's baseline audiogram when a recordable hearing loss case has been identified (see, *e.g.*, Exs. 26; 15: 25, 108, 111, 146, 163, 290, 354, 405, 407).

OSHA agrees with those commenters who argued that the preemployment or original baseline should be used as the benchmark from which to determine recordable hearing loss. Using the preemployment or original baseline automatically corrects for any hearing loss that may have occurred before the worker was employed with his or her current employer and will prevent the recording of cases of nonoccupational hearing loss. This policy is also consistent with OSHA's Occupational Noise standard and therefore increases the simplicity of the recording system.

OSHA also agrees that an employee's baseline audiogram should be adjusted if that employee experiences a recordable hearing loss. Revising the baseline by substituting the revised audiogram for the original audiogram after an STS has occurred will avoid a second or third recording of the same STS. On the other hand, recording hearing loss in a given worker only once would overlook the additional hearing loss that may occur, either in the same or the other ear, and would not be consistent with the definition of a ''new'' case in Section 1904.6 of this rule, which requires employers to evaluate any ''new'' case that results from exposure in the workplace for recordability. Subsequent STS findings, i.e., further 10-dB shifts in hearing level, are more serious events than the first STS, because of the nonlinearity of the dB rating system and the progressive severity of increasing hearing loss. A second or third STS in a given worker is therefore also treated under the recordkeeping system as a recordable illness on the OSHA 300 Log. The final rule makes this clear by requiring the employee's audiogram to be compared to the preemployment baseline audiogram when the worker has not experienced a recordable hearing loss, and to the audiogram reflecting the most recent recorded hearing loss if the worker has experienced a prior recorded hearing loss case.

Correction for Aging

In its proposal, OSHA included provisions allowing the employer to adjust the results of audiograms for presbycusis (age-related hearing loss), and asked for comment on whether an age correction is appropriate. The vast majority of commenters agreed that it was (see, *e.g.*, Exs. 26; 42; 15: 39, 45, 84, 113, 137, 163, 175, 201, 203, 262, 278, 281, 283, 331, 347, 348, 396, 405). As the Westinghouse Hanford Company commented, ''[t]he adjusting for presbycusis is appropriate as the deterioration of the hearing related to age is an important factor in determining the amount of hearing loss related to workplace hazards'' (Ex. 15: 108). Julia Royster, Ph.D. CC-A/SLP, agreed with this view, stating that ''Age-related hearing loss is inevitable. There are individual differences in the rate of age-related hearing change and the amount of hearing loss eventually shown due to presbycusis. However, most people will eventually develop age-related hearing changes equivalent to one or more OSHA STSs. Therefore, presbycusis corrections are necessary to avoid attributing age-related hearing change to occupational causes'' (Ex. 26, Appendix C).

However, some commenters did not agree that the use of age corrections was appropriate (see, *e.g.*, Exs. 15: 50, 110, 188, 233, 407). For example, Occupational Audiologists (Ex. 15: 50) pointed out that ''[w]hen the tables [in 29 CFR 1910.95] are applied they ignore any hearing loss that may be present as a result of medical pathology or noise exposure prior to the baseline hearing test,'' and therefore the ''use of the presbycusis tables hides significant changes in hearing thus delaying the STS required procedures of follow-up, notification, fitting/re-fitting, educating and requiring the wearing of hearing protection for some individuals.'' Similarly, John P. Barry (Ex. 15: 110), commented:

> At the 4000 Hz test frequency where occupational hearing loss first occurs, application of the presbycusis correction may significantly reduce the noted threshold shift relative to the employee's baseline audiogram. However, the changes at 2000 and 3000 Hz often are equal to or less than the presbycusis corrections. When these corrections are applied to actual audiometric data, they mask the effects of occupational noise and hinder early detection of noise-induced hearing loss. While hearing loss due to aging (presbycusis) and hearing loss due to the non occupational environment (sociocusis) may account for some of hearing loss noted in serial audiograms, there is no scientifically valid way to correct the data for non occupational hearing loss. * * * It is inappropriate use of statistics to apply median values from one population on a different population when no foundation has been developed to justify such manipulation of data.

OSHA recognizes that using the correction for presbycusis when interpreting audiogram results is controversial among experts in the field of audiology and that NIOSH has developed a new criteria document on occupational noise exposure (''Criteria for a Recommended Standard; Occupational Noise Exposure, Revised Criteria, 1998; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health; June 1998) which at present does not recommend applying presbycusis correction values to actual employee audiometric data. However, since the Occupational Noise standard itself permits employers to adjust the interpretation of audiograms for the effects of aging, it would be inconsistent and administratively complex to prohibit this practice in the recordkeeping rule. Accordingly, § 1904.10(b)(3) allows the employer to adjust for aging when determining the recordability of hearing loss. The adjustment is made using Tables F–1 or F–2, as appropriate (table F–1 applies to men and F–2 applies to women), in Appendix F of 29 CFR 1910.95. However, use of the correction for aging is not mandatory, just as it is not mandatory in the Noise standard itself.

Persistence of Hearing Loss

Yet another issue surrounding the recording of hearing loss involves the timing of the recording of a case on the OSHA forms when an audiogram has been performed on an employee. The issue is whether the results of an audiogram should be recorded within the interval for recording all cases, or whether the audiogram should be verified with a retest before recording is required. The proposed rule would have required the recording of hearing loss cases within 7 calendar days of the first audiogram, but then would have permitted employers to remove, or line out, a hearing loss case on the Log if a second audiogram taken on that employee within 30 days failed to show that the STS was persistent. Several commenters supported immediate recording with the 30 day retest provision (see, *e.g.*, Exs. 15: 295, 350, 394, 407). The Building and Construction Trades Department of the AFL–CIO (Ex. 15: 394) noted that if a

retest was not performed the case would never be recorded:

> We support OSHA, however, on requiring cases to be recorded and then lined out later if the loss does not persist. In construction, where a worker may never get a follow-up test because they have moved to a different worksite, the case needs to be recorded and presumed work-related. For construction workers that is a very good presumption to make. These changes should lead to more accurate reporting of hearing loss among construction workers.

Other commenters, however, did not agree with OSHA's proposal and believed the shifts should be confirmed before recording on the Log is required (see, *e.g.*, Exs. 26; 42; 15: 50, 84, 175, 181, 188, 201, 203, 331). Impact Health Services (Ex. 15: 175) expressed its opinion that

> The new hearing loss criterion should require recording of only confirmed work-related shifts in hearing. * * * There is no question that it is in the best interest of the hearing conservation program to identify shifts in hearing while they are still temporary so that follow-up action can be taken immediately to prevent permanent hearing loss. * * * However, requiring companies to record all shifts (both temporary and persistent) within six (proposed seven) days may have an unintended punitive effect. Companies are usually hesitant to record any incidents on Form 200 (proposed Form 300), even if lining-out the event at a later date is an option. Therefore, disallowing the OSHA 30-day retest for recording purposes may have a negative impact on programs which are designed to prevent hearing loss. By requiring recording of all shifts within seven days, companies may actually discontinue programs of conducting annual testing during the work shift, due to a reluctance to identify (and record) temporary threshold shift.

To address the problem identified by the Building and Construction Trades Department of the AFL–CIO, Impact Health Services recommended that ''[i]f a follow-up audiogram is not administered within 30 days of determination, or if the follow-up audiogram confirms the shift, then the shift is considered persistent and if determined to be work related, must be recorded on Form 300'' (Ex. 15: 175). The American Association of Occupational Health Nurses (Ex. 15: 181) noted that it ''would require less paperwork to record the hearing loss after confirmation by a re-test in thirty days, rather that recording the initial shift and then having to 'line out' the entry if the re-test was not indicative of any hearing loss.''

The Coalition to Preserve OSHA and NIOSH and Protect Workers' Hearing (Exs. 26; 42) stated:

> This urgency [as reflected in the proposal's provision requiring recording within 7 days] in recording unconfirmed shifts does not appear justified and creates additional burdens for the employer. The coalition recommends the following more efficient and suitably protective approach:
>
> —Only confirmed (i.e., persistent) work-related STSs are to be recorded on Form 300, unless a follow-up audiogram is not administered.
>
> —If a follow-up audiogram is not administered within 30 days of the initial determination of STS, or if the follow-up audiogram confirms the STS, then the shift is considered persistent, and if determined to be work-related, must be recorded on Form 300. * * *
>
> —If a follow-up audiogram given within 30 days of the initial determination of the STS does not confirm the STS, nothing is to be recorded on Form 300.

The Coalition also recommended that employers be allowed to remove, or line-out, recorded hearing losses that are not confirmed by subsequent retesting, or are found not to be work-related, within 15 months of the initial STS identification, at the discretion of the reviewing professional. Such a provision would allow employers to remove cases if the next annual audiogram showed an improvement in hearing (Exs. 26; 42).

Several commenters discussed the length of time OSHA should allow between the audiogram on which the STS was first detected and the confirmatory retest. The International Dairy Food Association suggested that allowing only a 30-day period ''may not be feasible in many situations where mobile van testing is utilized. * * * Thirty days are easily consumed during the compiling, mailing, interpreting, mailing, evaluation process'' (Ex. 15: 203). The Association recommended instead that ''OSHA increase the current requirement of 30 days to 45 days to allow employers and employees to obtain a re-test following an annual audiogram'' (Ex. 15: 403). For the same reasons, the Can Manufacturers Institute recommended that retests be permitted within 90 days of the original test, noting that ''[t]here is no magic regarding the current 30 day span'' (Ex. 15: 331). Industrial Health Inc. commented that ''there's no rush'' to retest and stated its preference for a time lapse longer than 30 days ''[i]n order to allow temporary [hearing loss] effects to subside'' (Ex. 15: 84). NIOSH (Ex. 15: 407) proposed that a confirmatory retest be permitted at any time provided that the retest was preceded by a 14-hour period of quiet.

After a review of the record on this point, OSHA has decided to require that any retest the employer chooses to perform be conducted within 30 days. Accordingly, in the final rule, at paragraph 1904.10(b)(4), employers are permitted, if they choose, to retest the employee to confirm or disprove that an STS reflected on the first audiogram was attributable to a cold or some other extraneous factor and was not persistent. If the employer elects to retest, the employer need not record the case until the retest is completed. If the retest confirms the hearing loss results, the case must be recorded within 7 calendar days. If the retest refutes the original test, the case is not recordable, and the employer does not have to take further action for OSHA recordkeeping purposes. The 30 day limit in the final recordkeeping rule is consistent with the 30 day retest provision of § 1910.95(g)(5)(ii), which allows the employer to obtain a retest within 30 days and consider the results of the retest as the annual audiogram if the STS recorded on the first test is determined not to persist.

OSHA believes that the 30 day retest option allows the employer to exclude false positive results and temporary threshold shifts from the data while ensuring the timely and appropriate recording of true positive results. Adding language to the final recordkeeping rule to specify different procedures, depending on whether the employer chooses to conduct a re-test within 30 days, adds some complexity to the final rule, but OSHA finds that this added complexity is appropriate because it will reduce burden for some employers and improve the accuracy of the hearing loss data.

Work-Relationship

One of the greatest sources of controversy in the record concerning OSHA's proposed criterion for recording hearing loss relates to the presumption of work-relationship in cases where an employee is exposed to an 8-hour time-weighted average sound level of noise equaling or exceeding 85 dB(A) (61 FR 4064). One commenter supported the recordkeeping proposal's approach on this matter. NIOSH (Ex. 15: 407) recommended that work-relationship be presumed ''if an employee is exposed to an 8-hour time-weighted sound level of noise equaling or exceeding 85 dB(A) or to peak sound levels equaling or exceeding 115 dB(A) regardless of brevity or infrequency.'' Several commenters advocated presuming work-relatedness if the employee experienced occupational exposures to 85 dB unless medical evidence showed that the hearing loss was not related to work (see, *e.g.*, Exs. 15: 39, 50, 146, 171, 188). For example, BF Goodrich (Ex. 15: 146) asked that ''[O]SHA give employers the opportunity to refute the work

relationship for employees found to have other than noise-induced hearing loss. If the employee is examined by an otolaryngologist or other qualified health professional and found to have a medical condition that causes hearing loss, the case should not be recordable.''

Several commenters objected to the proposed presumption of work-relationship (see, *e.g.*, Exs.15: 201, 263, 283, 289, 305, 318, 334, 390). The National Association of Manufacturers commented that ''There is no justification for presuming that hearing loss is work-related simply because an employee is exposed to an 8-hour time weighted average sound level of noise of 85 dB(A) or higher, even if it were a daily exposure and particularly where it could be as infrequent as once per year'' (Ex. 15: 305). Many commenters agreed with Mississippi Power, which wrote ''[t]he presumption of work relationship does not consider other potentially significant noise exposures such as noisy hobbies, or other noisy activities not associated with occupational noise exposures'' (Ex. 15: 263). Deere & Company argued that ''OSHA is not taking into account the noise-reducing effect of an effective hearing conservation program nor does it take into account the often significant noise exposure that many employees have away from the workplace '' (Ex. 15: 283).

There are numerous suggestions in the record on how best to deal with the presumption of work-relationship. Impact Health Services Inc., and others suggested that a case be considered work-related ''when in the judgement of the supervising audiologist or physician, the shift is due in full or in part to excessive noise exposure in the workplace'' (Ex. 15: 175). Akzo Nobel Chemicals proposed that work-relationship be presumed when ''there is no other reasonable non-work related explanation'' (Ex. 37), and the National Grain and Feed Association suggested ''that if an employer has an active and an enforceable hearing conservation program in place, the presumption should be that any hearing loss experienced by an employee is not work related unless it can be shown to be otherwise'' (Ex. 15: 119). A number of commenters agreed with the comment of the Edison Electric Group that ''OSHA should also establish a criteria of exposure to noise at or above the 85 dB(a) TWA action level of 30 or more days per year before the case is recordable'' because ''[a] single day's exposure at or below the PEL will not cause hearing loss'' (Ex. 15: 401), and NIOSH proposed that work-relationship be presumed ''if an employee is exposed to an 8-hour time-weighted sound level of noise equaling or exceeding 85 dB(A) or to peak sound levels equaling or exceeding 115 dB(A) regardless of brevity or infrequency'' (Ex. 15: 407).

In the final rule, OSHA has continued to rely on a presumption of work-relationship for workers who are exposed to noise at or above the action levels specified in the Occupational Noise standard (29 CFR 1910.95). In line with the overall concept of work relationship adopted in this final rule for all conditions, an injury or illness is considered work related if it occurs in the work environment. For workers who are exposed to the noise levels that require medical surveillance under § 1910.95 (an 8-hour time-weighted average of 85 dB(A) or greater, or a total noise dose of 50 percent), it is highly likely that workplace noise is the cause of or, at a minimum, has contributed to the observed STS. It is not necessary for the workplace to be the sole cause, or even the predominant cause, of the hearing loss in order for it to be work-related. Because the final recordkeeping rule relies upon the coverage of the Occupational Noise standard, it is also not necessary for OSHA to include a minimum time of exposure provision. The Occupational Noise standard does not require a baseline audiogram to be taken for up to six months after the employee is first exposed to noise in the workplace, and the next annual audiogram would not be taken until a year after that. For any worker to have an applicable change in audiogram results under the Occupational Noise standard, the worker would have been exposed to levels of noise exceeding 85 dB(A) for at least a year, and possibly even for 18 months.

In addition, the provisions allowing for review by a physician or other licensed health care professional allow for the exclusion of hearing loss cases that are not caused by noise exposure, such as off the job traumatic injury to the ear, infections, and the like. OSHA notes that this presumption is consistent with a similar presumption in OSHA's Occupational Noise standard (in both cases, an employer is permitted to rebut this presumption if he or she suspects that the hearing loss shown on an employer's audiogram in fact has a medical etiology and this is confirmed by a physician or other licensed health care professional).

Miscellaneous Issues

Other issues addressed by commenters to the rulemaking record on OSHA's proposed criterion for recording hearing loss included whether OSHA should treat hearing levels for each ear separately for recording purposes. Impact Health Services, Inc. (Ex. 15: 175) recommended that proposed Appendix B specify that shifts in hearing be calculated separately for each ear:

> Because an individual's left and right ears may be affected differently by noise or other occupational injury, it is important that Appendix B specifies that shifts in hearing are to be calculated separately for each ear.

Arguing along similar lines, the Chevron Companies raised the issue of revising baselines for both ears when a standard threshold shift is recorded in only one ear. They commented:

> The proposed rule discusses an average shift in one or both ears and establishing a new or revised baseline for future tests to be evaluated against. In discussing the new or revised baseline however the proposed rule does not give guidance on revision when only one ear meets the revision criteria (15 dB or 25 dB or whatever the final rule states). Are the baselines for both ears revised or only the ear meeting the criteria? This issue should be clearly addressed in the final rule. Usually noise induced hearing loss is a symmetrical event so it would be reasonable to revise the baselines for both ears. If the baselines are to be revised individually one could anticipate more hearing losses being recorded than if they are revised in unison. Therefore, for Hearing Conservation Program statistics to be meaningful and comparable, baseline revision must be handled the same across industries (Ex. 15: 343).

Shifts in hearing must be calculated separately for each ear, in accordance with the requirements of § 1910.95. However, if a single audiogram reflects a loss of hearing in both ears, only one hearing loss case must be entered into the records. The issue of revising baseline audiograms to evaluate the extent of future hearing loss pertains to a hearing loss case that has been entered on the Log. If a single-ear STS loss has been recorded on the Log, then the baseline audiogram should be adjusted for that ear, and that ear only. If an STS affecting both ears has been recorded on the Log, then the baseline audiogram may be revised and applied to both ears. This means that there should be no cases where the baseline audiogram has been adjusted and the case has not been recorded on the Log.

The Medical Educational Development Institute (Ex. 15: 25) made several recommendations for changing OSHA's noise standard, 29 CFR 1910.95, to add specific steps to be taken when a 10 dB STS occurs, such as employee interviews, reevaluations with medical personnel, physician referral, labeling of revised baseline audiograms, and reassignment to quieter work for workers with a second or subsequent STS. These are interesting

recommendations, but they address issues that are beyond the scope of this rulemaking. This rulemaking is concerned only with the Part 1904 requirements for recording occupational hearing loss on the OSHA 300 Log, and does not affect any provision of the OSHA Occupational Noise standard.

Phillips Petroleum (Ex. 15: 354) raised another miscellaneous issue when it suggested that OSHA phase in the recording of audiometric tests if a more protective definition of hearing loss was adopted in the final rule:

> [i]f OSHA insists on the recording of hearing loss at the 15 dB, it would artificially inflate the number of recordable hearing-loss cases and have a similar effect as that of the severity issue. We recommend that if the recordability bar is lowered from 25 dB], OSHA allow a transition period where a 15 dB shift is listed on the log, but is not counted in the recordable total. This should continue for a transition period of three years to allow facilities to identify all employees affected. Any employees who were not identified during the transition period would become recordables with a 15 dB hearing loss after the transition period.

OSHA does not believe that a transition period is needed for the recording of occupational hearing loss or any other type of injury or illness included in the records. Adding such a provision would add unnecessary complexity to the rule, and would also create an additional change in the data that would make it difficult to compare data between the two years at the end of the transition. OSHA finds that it is better to implement the recordkeeping changes as a single event and reduce the impacts on the data in future years.

As noted previously, OSHA is not making any changes to its noise standards in this Part 1904 rulemaking, and thus no additional protections are being provided in this final rule.

Section 1904.11 Additional Recording Criteria for Work-Related Tuberculosis Cases

Section 1904.11 of the final rule being published today addresses the recording of tuberculosis (TB) infections that may occur to workers occupationally exposed to TB. TB is a major health concern, and nearly one-third of the world's population may be infected with the TB bacterium at the present time. There are two general stages of TB, tuberculosis infection and active tuberculosis disease. Individuals with tuberculosis infection and no active disease are not infectious; tuberculosis infections are asymptomatic and are only detected by a positive response to a tuberculin skin test. Workers in many settings are at risk of contracting TB infection from their clients or patients, and some workers are at greatly increased risk, such as workers exposed to TB patients in health care settings. Outbreaks have also occurred in a variety of workplaces, including hospitals, prisons, homeless shelters, nursing homes, and manufacturing facilities (62 FR 54159).

The text of § 1904.11 of the final rule states:

(a) Basic requirement. If any of your employees has been occupationally exposed to anyone with a known case of active tuberculosis (TB), and that employee subsequently develops a tuberculosis infection, as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional, you must record the case on the OSHA 300 Log by checking the ''respiratory condition'' column.

(b) Implementation.

(1) Do I have to record, on the Log, a positive TB skin test result obtained at a pre-employment physical?

No, because the employee was not occupationally exposed to a known case of active tuberculosis in your workplace.

(2) May I line-out or erase a recorded TB case if I obtain evidence that the case was not caused by occupational exposure?

Yes. you may line-out or erase the case from the Log under the following circumstances:

(i) The worker is living in a household with a person who has been diagnosed with active TB;

(ii) The Public Health Department has identified the worker as a contact of an individual with a case of active TB unrelated to the workplace; or

(iii) A medical investigation shows that the employee's infection was caused by exposure to TB away from work, or proves that the case was not related to the workplace TB exposure.

The Proposal

The proposed rule included criteria for the recording of TB cases in proposed Appendix B. In that appendix, OSHA proposed to require the recording of cases of TB infection or disease at the time an employee first had a positive tuberculin skin test, except in those cases where the skin test result occurred before the employee was assigned to work with patients or clients. The proposal stated that cases of TB disease or TB infection would be presumed to be work-related if they occurred in an employee employed in one of the following industries: correctional facilities, health care facilities, homeless shelters, long-term care facilities for the elderly, and drug treatment centers. In other words, the proposal contained a ''special industries'' presumption for those industries known to have higher rates of occupational TB transmission. OSHA proposed to allow employers to rebut the presumption of work-relatedness if they could provide evidence that the employee had been exposed to active TB outside the work environment. Examples of such evidence would have included (1) the employee was living in a household with a person who had been diagnosed with active TB, or (2) the Public Health Department had identified the employee as a contact of an individual with a case of active TB. For employees working in industries other than the ''special'' industries, OSHA proposed that a positive skin test result be considered work-related when the employee had been exposed to a person within the work environment who was known to have TB disease. Under the proposal, an employee exhibiting a positive skin test and working in industries other than those listed would otherwise not be presumed to have acquired the infection in the work environment (61 FR 4041). As noted in the proposal, these recording criteria for TB were consistent with those published previously in OSHA directives to the field (February 26, 1993 memo to Regional Administrators). The final rule permits employers to rebut the presumption of work-relatedness in cases of TB infection among employees but does not rely on the ''special industries'' approach taken by OSHA in the proposal, for reasons explained below.

Positive Skin Tests

Several comments in the record supported OSHA's proposed recording criteria for occupational TB cases (see, *e.g.*, Exs. 15: 72, 133, 198). A number of commenters, however, questioned whether a positive tuberculin skin test reaction should be considered a recordable occupational illness (Ex. 15: 146, 188, 200). For example, BF Goodrich wrote:

> We disagree with a positive skin test reaction as the criterion for recording a TB case. Such tests are only indicative of a past exposure, not necessarily an illness or a condition. OSHA should allow diagnosing medical professionals to use their professional judgement to confirm active TB cases and restrict recordability to those cases (Ex. 15: 146).

Kaiser Permanente (Ex. 15: 200) argued:

> The presumption that an initial positive skin test result or diagnosed tuberculosis in a health care employee is occupationally based is not warranted. While there have been outbreaks in health care facilities

documented in the literature, and while skin test conversion does occur in health care workers and may in given cases be occupationally related, the Kaiser Permanente experience has not been characterized by outbreaks or significant rates of skin test conversion. Diagnosed cases of tuberculosis among Kaiser Permanente health care workers are extremely rare.

OSHA views the situation differently. A positive tuberculin skin test indicates that the employee has been exposed to Mycobacterium tuberculosis *and* has been infected with the bacterium. Although the worker may or may not have active tuberculosis disease, the worker has become infected. Otherwise, his or her body would not have formed antibodies against these pathogens. (OSHA is aware that, in rare situations, a positive skin test result may indicate a prior inoculation against TB rather than an infection.)

OSHA believes that TB infection is a significant change in the health status of an individual, and, if occupational in origin, is precisely the type of illness Congress envisioned including in the OSHA injury and illness statistics. Contracting a TB infection from a patient, client, detainee, or other person in the workplace would cause serious concern, in OSHA's view, in any reasonable person. Once a worker has contracted the TB infection, he or she will harbor the infection for life. At some time in the future, the infection can progress to become active disease, with pulmonary infiltration, cavitation, and fibrosis, and may lead to permanent lung damage and death. An employee harboring TB infection is particularly likely to develop the full-blown disease if he or she must undergo chemotherapy, contracts another disease, or experiences poor health. According to OSHA's proposed TB rule (62 FR 54159), approximately 10% of all TB infections progress at some point to active disease, and it is not possible to predict in advance which individuals will do so.

OSHA also believes that it is important to require employers to record TB cases when an employee experiences a positive skin test because doing so will create more timely and complete statistics. If, for example, OSHA were to require recording only when the worker develops active TB, many cases that were in fact occupational in origin would go unrecorded. In such cases, if the worker had retired or moved on to other employment, the employer would generally not know that the employee had contracted active TB disease, and the case would never be included in the Nation's occupational injury and illness statistics and important information would be lost. Thus, requiring the recording of a case at the infection stage will create more accurate, complete and useful statistics, one of the major goals of this rulemaking.

Several commenters suggested that TB should not be recorded at all because, in their view, acquiring TB infection is not within the control of the employer and is not amenable to control by an employer's safety and health program (see, *e.g.*, Exs. 15: 316, 348, 414, 423). For example, Raytheon Engineers & Constructors (Ex. 15: 414) argued that TB infection and disease should not be recorded because it ''is not due to a condition of the work environment under the control of the employer.'' Dupont argued along similar lines:

> It does not make sense to record tuberculosis cases where an infectious worker infects co-workers. That has nothing to do with job activity or with the workplace except as an accidental exposure. The same type of thinking could apply to flu symptoms, ''colds'', conjunctivitis, etc., where lack of personal hygiene or a strong ''germ'' migrated through the workplace. If the exposure is not part of the job activity, none of the cases mentioned, including tuberculosis, should be recorded (Ex. 15: 348).

As discussed elsewhere in this document (see the Legal Authority section above), Congress did not intend OSHA's recordkeeping system only to capture conditions over which the employer has complete control or the ability to prevent the condition. The Act thus supports a presumption of work-relatedness for illnesses resulting from exposure in the workplace, and the OSHA recordkeeping system has always reflected this position (although a few specific exceptions to that presumption are permitted, including an exception for common colds and flu). In accordance with that presumption, when an employee is exposed to an infectious agent in the workplace, such as TB, chicken pox, etc., either by a co-worker, client, patient, or any other person, and the employee becomes ill, workplace conditions have either caused or contributed to the illness and it is therefore work-related. Since, as discussed above, TB infection is clearly a serious condition, it is non-minor and must be recorded.

Employee-to-Employee Transmission

Two commenters argued that transmission from employee to employee should not be considered work-related (Exs. 15: 39, 348). The RR Donnelley & Sons Company (Ex. 15: 39) pointed out that an employer ''may never know that a fellow employee has tuberculosis. To record personal transmission from one employee to another goes beyond the scope of work relatedness.'' Other commenters agreed with OSHA that, at least under certain circumstances, employee-to-employee transmission should be considered work-related (see, *e.g.*, Exs. 15: 78, 218, 361, 398, 407). For example, Alliant Techsystems (Ex. 15: 78) stated that ''[i]f a worker with infectious tuberculosis disease infected their co-worker, the co-workers' infection/disease would be recordable.''

Again, as discussed above, OSHA believes, under the positional theory of causality, that non-minor illnesses resulting from an exposure in the work environment are work-related and therefore recordable unless a specific exemption to the presumption applies. Infection from exposure to another employee at work is no different, in terms of the geographic presumption, from infection resulting from exposure to a client, patient, or any other person who is present in the workplace. The transmission of TB infection from one employee to another person at work, including a co-worker, clearly is non-minor and is squarely within the presumption.

Special Industry Presumptions

Many of the commenters supported OSHA's proposed approach of assuming work-relatedness for TB cases if the infection occurred in workers employed in certain special industries (see, *e.g.*, Exs. 24, 15: 78, 345, 376, 407). Other commenters suggested that OSHA abandon the proposed special industry presumption (see, *e.g.*, Exs. 15: 197, 200, 225, 259, 279, 302, 341, 431, 436). In the proposed rule, OSHA proposed different work-relatedness criteria for different work environments, *i.e.,* in industries in which published reports of TB outbreaks were available from the Centers for Disease Control and Prevention (CDC), a special presumption would prevail, while in industries in which occupational transmission had not been documented it would not.

Kaiser Permanente commented that the CDC ''Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Facilities establish facility risk levels for occupational transmission of tuberculosis based upon assessment of a range of relevant criteria such as job duties, incidence of TB patients treated, and community TB rates'' and urged OSHA to follow these in the final rule (Ex. 15: 200).

Two commenters objected to the inclusion of nursing homes in the list of

industries in which the special industry presumption would apply (Exs. 15: 259, 341). For example, the American Health Care Association (AHCA) suggested:

> [i]t should not be presumed that exposure is work-related in all long term care facilities for the elderly. Depending upon the facility and/or its location, the incidence of TB infection/disease in the facility may be less than that of the general public. The Centers for Disease Control and Prevention recognizes that even within certain settings, there are varying levels of risk (minimal to high). TB linkage to the facility should be based on the level of risk using the CDC assessment system, with work relatedness assigned to facilities within the moderate to high risk classification (Ex. 15: 341).

Two commenters suggested OSHA add more industries to the proposed list of industries to which the special industry presumption would apply. The American Nurses Association (ANA) told the Agency that ''There should be no question on the inclusion of the home health arena under the rubric of health care facilities. The risk of transmission exists in all health care work sites including home health sites and must not be limited to traditional health care facilities' (Ex. 15: 376). Alliant Techsystems (Ex. 15: 78) suggested adding ''Industries that causes exposure outside the United States such as the airline sector.''

Some commenters argued that recording should be limited only to TB cases occurring in workers in specific industries, *i.e.,* that no case of TB in other industries, no matter how transmitted or when diagnosed, should be recordable (see, *e.g.*, Exs. 15: 351, 378, 396). Westinghouse Electric Corporation recommended that ''Tuberculosis exposure or disease cases outside of listed industries where cases would be prevalent (such as health care facilities, long-term care facilities, etc.) should not be recordable as an occupational illness. The logical source of exposure would be non work-related and outside the premises of the employer's establishment.'' Likewise, the Air Transport Association (Ex. 15: 378) suggested that TB recording ''[s]hould be limited to medical work environments rather than general industry. The administrative burden far exceeds the expected benefits.''

OSHA is aware that the relative risk of TB, and of all occupational injuries and illnesses, varies widely from industry to industry and from occupation to occupation. However, OSHA does not consider this circumstance relevant for recordkeeping purposes. The fact that ironworkers experience a higher incidence of falls from elevation than do carpenters does not mean that carpenters' injuries from such falls should not be recorded. Congress clearly intended information such as this to be used by individual employers and to be captured in the national statistical program. Again, because TB infection is a significant illness wherever in the workplace it occurs, and because no exemption applies, it must be recorded in all covered workplaces. Accordingly, in the final rule being published today, TB cases are recordable without regard to the relative risk present in a given industry, providing only that the employee with the infection has been occupationally exposed to someone with a known case of active tuberculosis. Employers may rebut the presumption only if a medical investigation or other special circumstances reveal that the case is not work-related.

In the final rule, OSHA has not adopted the ''special industries'' presumption, for several reasons. First, doing so would be inconsistent with the approach taken by the Agency in other parts of the rule, *i.e.,* specific industries have not been singled out for special treatment elsewhere. Second, a ''special industries'' presumption is not needed because the approach OSHA has taken in this section will provide employers with better ways of rebutting work-relatedness when that is appropriate. Finally, the special industries approach is not sufficiently accurate or well enough targeted to achieve the intended goal. Many cases of occupationally transmitted TB occur among employees in industries other than the ''special industries,'' and evidence shows that the risk of TB infection varies greatly among facilities in the special industries.

Other Suggestions for Determining the Work-Relatedness of TB Cases

A number of commenters provided other suggestions for determining the work-relatedness of TB cases (see, *e.g.*, Exs. 15: 39, 154, 181, 188, 200, 218, 226, 335, 393, 407, 431, 436).

The Society for Human Resource Management stated:

> Workers are exposed to tuberculosis in many places other than the work site: it would be unduly burdensome to require employers to provide evidence that the employee has had non-work exposure. Since the employee is in the best position to retrace his or her activities, he or she should be required to provide evidence to establish work-relatedness (Ex. 15: 431).

OSHA does not agree that the employee is in a better position than the employer to know whether an employee has been exposed to TB at work. For example, the worker is not as likely to know whether a co-worker, patient, client, or other work contact has an active TB case. To determine whether exposure to an active case of TB has occurred at work, the employer may interview the employee to obtain additional information, or initiate a medical investigation of the case, but it would be inappropriate to place the burden of providing evidence of work-relationship on the employee.

The American Ambulance Association (Ex. 15: 226) did not support the proposed approach of reporting an employee's positive tuberculin skin test reaction ''unless there has [also] been documentation of a work-related exposure.'' The American Network of Community Options and Resources (ANCOR) argued ''ANCOR strongly opposes the inclusion of tuberculosis unless the infection is known to have been caused at work due to a known, active carrier'' (Ex. 15: 393). The American Association of Occupational Health Nurses (AAOHN) proposed that the criteria for recording TB infection or illness be ''[a]n employee tests positive for tuberculosis infection after being exposed to a person within the work environment known to have tuberculosis disease and the positive test results are determined to be caused by the person in the workplace with tuberculosis disease'' (Ex. 15: 188).

Several commenters suggested that the first case of TB occurring in the workplace should not be recordable (see, *e.g.*, Exs. 15: 218, 361, 398). In two separate comments, the Association for Professionals in Infection Control (APIC) recommended:

> [a]s an acceptable rebuttal to the presumption of work relationship when an employee is found to be infected with tuberculosis or to have active disease. The employer is able to demonstrate that no other employee with similar duties and patient assignments as the infected employee was found to have tuberculosis infection or active disease (Exs. 15: 361, 398).

In addition, Bell Atlantic (Ex. 15: 218) proposed that public health agencies be charged with determining the work-relationship of cases of TB in the workplace. Bell Atlantic's comments to the rulemaking record were as follows:

> Bell Atlantic does not agree that tuberculosis cases should be inherently reported. The first identified incidence of tuberculosis in an employee group probably was not contracted in the workplace. However, if Public Health Officials deem it necessary to require TB testing in the facility as a preventive measure, and new cases are found, these may be recordable. The criteria here is one of public health, and where the disease initiated. The Public Health Agencies

would be charged with investigation of family members, friends, and the community away from work.

A number of commenters misunderstood the proposal as allowing the geographic presumption of work-relationship only to be rebutted in certain ''high risk'' industries. For example, Alcoa commented that ''OSHA seems to conclude * * * that if someone in your workforce has TB then each person in the workplace who tests positive is now considered as having work-related TB due to the incidental exposure potential'' (Ex. 15: 65). ALCOA suggested that the final rule allow the geographic presumption of work-relationship to be rebutted for ''all other industries.''

OSHA agrees that a case of TB should be recorded only when an employee has been exposed to TB in the workplace (*i.e.,* that the positional theory of causation applies to these cases just as it does to all others). OSHA has added an additional recording criterion in this case: for a TB case occurring in an employee to be recordable, that employee must have been exposed at work to someone with a known case of active tuberculosis. The language of the final rule addresses these concerns: ''If any of your employees has been occupationally exposed to anyone with a known case of active tuberculosis, * * *'' Under the final rule, if a worker reports a case of TB but the worker has not been exposed to an active case of the disease at work, the case is not recordable. However, OSHA sees no need for the employer to document such workplace exposure, or for the Agency to require a higher level of proof that workplace exposure has occurred in these compared with other cases. Further, OSHA knows of no justification for excluding cases simply because they are the first or only case discovered in the workplace. If a worker contracted the disease from contact with a co-worker, patient, client, customer or other work contact, the case would be work-related, even though it was the first case detected. Many work-related injury and illness cases would be excluded from the recordkeeping system if cases were only considered to be work-related when they occurred in clusters or epidemics. This was clearly not Congress's intent.

The final rule's criteria for recording TB cases include three provisions designed to help employers rule out cases where occupational exposure is not the cause of the infection in the employee (*i.e.,* where the infection was caused by exposure outside the work environment). An employer is not required to record a case involving an employee who has a positive skin test and who is exposed at work if (1) the worker is living in a household with a person who has been diagnosed with active TB, (2) the Public Health Department has identified the worker as a contact of a case of active TB unrelated to the workplace, or (3) a medical investigation shows that the employee's infection was caused by exposure to TB away from work or proves that the case was not related to the workplace TB exposure.

The final rule thus envisions a special role for public health departments that may investigate TB outbreaks but does not permit employers to wait to record a case until a public health department confirms the work-relatedness of the case. In addition, the final rule's provisions for excluding cases apply in all industries covered by the recordkeeping rule, just as the recording requirements apply to all industries. The final rule thus does not include the ''special industries'' approach of the proposal. As discussed above, the Agency has rejected this proposed approach because it would not have been consistent with the approach OSHA has taken elsewhere in the rule, which is not industry-specific; it is not necessary to attain the intended goal; and it would not, in any case, have achieved that goal with the appropriate degree of accuracy or specificity.

A few commenters stressed that employers should not be required to record cases where the employee was infected with TB before employment (see, *e.g.*, Exs. 15: 65, 407, 414). For example, Alcoa (Ex. 15: 65) proposed that employers not be required to consider as work-related any case where ''the employee has previously had a positive PPD [Purified Protein Derivative] test result.'' In response to this suggestion, OSHA has added an implementation question to the final rule to make sure that employers understand that pre-employment skin test results for TB are not work-related and do not have to be recorded. These results are not considered work-related for the purposes of the current employer's Log because the test result cannot be the result of an event or exposure in the current employer's work environment.

NIOSH proposed to expand the recording criteria for TB infection or disease to include the criterion that ''regardless of the industry or source of infection, a case of active TB disease is presumed to be work-related if the affected employee has silicosis attributable to crystalline silica exposure in the employer's establishment'' (Ex. 15: 407). OSHA has chosen not to include this criterion in the final rule because in NIOSH's example the case would previously have been entered into the records as a case of silicosis. Adopting the NIOSH criterion would result in the same illness being recorded twice.

Kaiser Permanente recommended that OSHA adopt a method for determining the work relationship of TB cases that Kaiser Permanente currently uses in California to evaluate whether cases are recordable, in accordance with an agreement with the California Division of Occupational Safety and Health (Ex. 15: 200):

1. The employer shall promptly investigate all tuberculin skin test conversions according to the ''Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities'' published by the Centers for Disease Control and Prevention (CDC Guidelines).
2. Probable exposure to Mycobacterium tuberculosis unrelated to work environment. The conversion shall not be recorded on the log if, after investigation, the employer reasonably determines that the employee probably converted as a result of exposure unrelated to the employee's work duties.
3. Probable exposure to Mycobacterium tuberculosis related to work environment. The conversion shall be recorded on the log if, after investigation, the employer reasonably determines that the employee probably converted as a result of exposure related to the employee's work duties.
4. Inability to determine probable cause of exposure. If, after reasonably thorough investigation, the employer is unable to determine whether the employee probably converted as a result of exposure related to the employee's work duties, the following shall be done:
   a. The conversion shall not be recorded on the log if the employee was, at all times during which the conversion could have occurred, assigned to a unit or job classification, which met the minimal risk, low risk, or very low risk criteria specified in the CDC Guidelines.
   b. In all other cases, the conversion shall be recorded on the log.

As an initial matter, OSHA notes that the States are not authorized to provide employers with variances to the Part 1904 regulations, under either the rule being published today or the former rule. The issuing of such variances is exclusively reserved to Federal OSHA, to help ensure the consistency of the data nationwide and to make the data comparable from state-to-state. OSHA has not adopted the approach suggested by Kaiser Permanente because the approach is too complex, does not apply equally to health care and non-health care settings, and does not provide the clear guidance needed for a regulatory requirement. However, because the final rule allows employers to rebut the presumption of work-relatedness if a

medical evaluation concludes that the TB infection did not arise as a result of occupational exposure, a physician or other licensed health care professional could use the CDC Guidelines or another method to investigate the origin of the case. If such an investigation resulted in information that demonstrates that the case is not related to a workplace exposure, the employer need not record the case. For example, such an investigation might reveal that the employee had been vaccinated in childhood with the BCG vaccine. The employer may wish, in such cases, to keep records of the investigation and determination.

Section 1904.12 Recording Criteria for Cases Involving Work-Related Musculoskeletal Disorders

Section 1904.12, entitled ''Recording criteria for cases involving work-related musculoskeletal disorders,'' provides requirements for recording work-related musculoskeletal disorders (MSDs). MSDs are defined in the final recordkeeping rule as ''injuries and disorders of the muscles, nerves, tendons, ligaments, joints, cartilage, and spinal discs.''

Paragraph 1904.12(a) establishes the employer's basic obligation to enter recordable musculoskeletal disorders on the Log and to check the musculoskeletal disorder column on the right side of the Log when such a case occurs. The paragraph states that, ''[i]f any of your employees experiences a recordable work-related musculoskeletal disorder (MSD), you must record it on the OSHA 300 Log by checking the ''musculoskeletal disorder'' column.'' Paragraph 1904.12(b)(1) contains the definition of 'musculoskeletal disorder' used for recordkeeping purposes. Paragraphs 1904.12(b)(2) and 1904.12(b)(3) provide answers to questions that may arise in implementing the basic requirement, including questions on the work-relatedness of MSDs.

The Proposal

The proposal defined MSDs as ''injuries and illnesses * * * result[ing] from ergonomic hazards,'' such as lifting, repeated motion, and repetitive strain and stress on the musculoskeletal system. (61 FR 4046) This language was derived, in part, from the definition of the term ''cumulative trauma disorders (CTDs),'' used in OSHA's *Ergonomics Program Management Guidelines For Meatpacking Plants* (hereafter ''*Meatpacking Guidelines*''). The 1990 *Meatpacking Guidelines* used the term CTDs to cover ''health disorders arising from repeated biomechanical stress due to ergonomic hazards.'' (Ex. 11 at p. 20.)

Appendix B to the recordkeeping rule proposed requirements for employers to follow when recording MSDs. The proposed requirements would have required recording: (1) whenever an MSD was diagnosed by a health care provider, or (2) whenever an employee presented with one or more of the objective signs of such disorders, such as swelling, redness indicative of inflammation, or deformity. When either of these two criteria was met, or when an employee experienced subjective symptoms, such as pain, and one or more of the general criteria for recording injuries and illnesses (i.e., death, loss of consciousness, days away from work, restricted work, job transfer, or medical treatment) were met, an MSD case would have been recordable under the proposal.

The proposal also contained special provisions for determining whether hot and cold treatments administered to alleviate the signs and symptoms of MSDs would be considered first aid or medical treatment. Under the former recordkeeping rule, the application of hot and cold treatment on the first visit to medical personnel was considered first aid, while the application of such treatment on the second or subsequent visit was considered to constitute medical treatment. OSHA proposed to revise this provision to consider hot or cold therapy to be first aid for all injuries and illnesses except MSDs, but to consider two or more applications of such therapy medical treatment if used for an MSD case (61 FR 4064). Whether hot and cold therapies constitute first aid or medical treatment is addressed in detail in section 1904.7 of the final recordkeeping rule. As discussed in that section, under the final rule, hot and cold therapies are considered first aid, regardless of the type of injury or illness to which they are applied or the number of times such therapy is applied.

The Final Rule's Definition of Musculoskeletal Disorder

The preamble to the proposal described an MSD as an injury or disorder ''resulting from'' ergonomic hazards. However, OSHA has not carried this approach forward in the final rule because it would rely on an assessment of the cause of the injury, rather than the nature of the injury or illness itself.

Paragraph 1904.12(b)(1) of the final rule therefore states, in pertinent part, that MSDs ''are injuries and disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. MSDs do not include injuries caused by slips, trips, falls, or other similar accidents.'' This language clarifies that, for recordkeeping purposes, OSHA is not defining MSDs as injuries or disorders caused by particular risk factors in the workplace. Instead, the Agency defines MSDs as including all injuries to the listed soft tissues and structures of the body regardless of physical cause, unless those injuries resulted from slips, trips, falls, motor vehicle accidents, or similar accidents. To provide examples of injuries and disorders that are included in the definition of MSD used in the final rule, Section 1904.12(b)(1) contains a list of examples of MSDs; however, musculoskeletal conditions not on this list may also meet the final rule's definition of MSD.

Determining the Work-Relatedness of MSDs

Section 1904.12(b)(2) provides that ''[t]here are no special criteria for determining which musculoskeletal disorders to record. An MSD case is recorded using the same process you would use for any other injury or illness.'' This means that employers must apply the criteria set out in sections 1904.5–1904.7 of the final rule to determine whether a reported MSD is ''work-related,'' is a ''new case,'' and then meets one or more of the general recording criteria. The following discussion supplements the information provided in the summary and explanation accompanying section 1904.5, to assist employers in deciding which MSDs are work-related.

For MSDs, as for all other types of injuries and illnesses, the threshold question is whether the geographic presumption established in paragraph 1904.5(a) applies. The presumption applies whenever an MSD or other type of injury or illness ''results from an event or exposure in the work environment.'' For recordkeeping purposes, an ''event'' or ''exposure'' includes any identifiable incident, occurrence, activity, or bodily movement that occurs in the work environment. If an MSD can be attributed to such an event or exposure, the case is work related, regardless of the nature or extent of the ergonomic risk factors present in the workplace or the worker's job.

This position is not new to the final rule; it is clearly reflected in the 1986 BLS *Recordkeeping Guidelines.* The *Guidelines* contain the following discussion of the applicability of the work-relatedness presumption to back injuries and hernia cases, which reflects OSHA's position under this final rule:

> Back and hernia cases should be evaluated in the same manner as any other case.

Questions concerning the recordability of these cases usually revolve around: (1) The impact of a previous back or hernia condition on the recordability of the case, or (2) whether or not the back injury or hernia was work-related.

Preexisting conditions generally do not impact the recordability of cases under the OSHA system. * * * For a back or hernia case to be considered work-related, it must have resulted from a work-related event or exposure in the work environment. Employers may sometimes be able to distinguish between back injuries that result from an event in the work environment, and back injuries that are caused elsewhere and merely surface in the work environment. The former are recordable; the latter are not. This test should be applied to all injuries and illnesses, not just back and hernia cases. *Guidelines* at p. 32 (emphasis in original).

The *Guidelines* provide the following question and answer to illustrate that MSDs may be attributable to events or exposures in the work environment that pose little apparent ergonomic risk:

B–16 Q. An employee's back goes out while performing routine activity at work. Assuming the employee was not involved in any stressful activity, such as lifting a heavy object, is the case recordable?

A. Particularly stressful activity is not required. If an event (such as a * * * sharp twist, etc.) occurred in the work environment that caused or contributed to the injury, the case would be recordable, assuming it meets the other requirements for recordability. *Guidelines* at p. 32 (emphasis in original).

OSHA believes that, in most cases, an employee who reports an MSD at work will be able to identify the activity or bodily movements (such as lifting, twisting, or repetitive motions) that produced the MSD. If the activity or movements that precipitated the disorder occurred at work, the presumption of work-relatedness is established without the need for further analysis. However, cases may arise in which it is unclear whether the MSD results from an event or exposure in the work environment. In these cases, paragraph 1904.5(b)(3) of the final rule directs the employer to evaluate the employee's work activities to determine whether it is likely that one or more events or exposures in the work environment caused or contributed to the disorder. In this situation the employer would consider the employee report, the ergonomic risk factors present in the employee's job, and other available information to determine work-relationship.

In evaluating job activities and work conditions to identify whether ergonomic risk factors are present, employers may turn to readily available sources of information for assistance, such as materials made available by OSHA on its web site, current scientific evidence, available industry guidelines, and other pertinent sources. This final rule does not establish new or different criteria for determining whether an MSD is more likely than not to have resulted from work activities or job conditions, i.e., from exposure to ergonomic risk factors at work. As is the case for all injuries and illnesses, the employer must make a good faith determination about work-relatedness in each case, based on the available evidence.

The preamble discussion for paragraph 1904.5(b)(3) contains some examples to assist employers in making this determination. In addition, the BLS *Guidelines* contain the following examples:

Q. Must there be an identifiable event or exposure in the work environment for there to be a recordable case? What if someone experiences a backache, but cannot identify the particular movement which caused the injury?

A. Usually, there will be an identifiable event or exposure to which the employer or employee can attribute the injury or illness. However, this is not necessary for recordkeeping purposes. If it seems likely that an event or exposure in the work environment either caused or contributed to the case, the case is recordable, even though the exact time or location of the particular event or exposure cannot be identified.

If the backache is known to result from some nonwork-related activity outside the work environment and merely surfaces at work, then the employer need not record the case. In these situations, employers may want to document the reasons they feel the case is not work related. (BLS *Guidelines,* p. 32.)

Comments on Other Approaches to Recording MSDs

Commenters provided OSHA with several suggestions for recording musculoskeletal disorders: requiring diagnosis by a health care professional, recording symptoms lasting seven days, and eliminating special criteria for recording MSD cases. These are discussed below.

Eliminating Special Criteria for Recording MSD Cases

A large number of commenters suggested that the recordkeeping rule should not contain criteria for recording MSD cases that were different from those for recording all injuries and illnesses, arguing that they should be captured using the criteria for all other types of injuries and illnesses (see, *e.g.*, Exs. 15: 9, 44, 76, 109, 122, 123, 130, 145, 146, 176, 188, 199, 201, 218, 235, 272, 273, 288, 289, 301, 303, 304, 347, 351, 359, 368, 386, 392, 395, 396, 409, 425, 427). The comments of PPG Industries, Inc. (Ex. 15: 109) are representative of these views: ''The system for evaluating all cases should be consistent. When evaluating musculoskeletal disorders, the normal recordkeeping criteria should be used.'' The Voluntary Protection Programs Participants' Association (VPPPA) also recommended that ''MSDs should be treated as any other injury or illness. If the problem arises to the level of seriousness that it is a recordable injury or illness, then it should be recorded on the log'' (Ex. 15: 425). The National Safety Council (Ex. 15: 359) recommended that ''if an employee has pain, he or she should report it. It then becomes recordable or not recordable based on the usual criteria. The employer makes a decision on a case by case basis.''

OSHA agrees with these commenters that MSD cases should be recorded in the same way as other injuries and illnesses, and should not have separate recordability criteria. Using the same criteria for these cases, which constitute one-third of all occupational injuries and illnesses, simplifies the final rule and makes the system easier for employers and employees to use. Employing consistent recording criteria thus helps to achieve one of OSHA's major goals in this rulemaking, simplification. Section 1904.12 has been included in the final rule not to impose different recording criteria on MSDs, but to emphasize that employers are to record MSD cases like all other injuries and illnesses. OSHA believes that this approach to the recording of MSDs will yield statistics on musculoskeletal disorders that are reliable and complete.

Requiring Diagnosis by a Health Care Professional

A number of commenters recommended that OSHA require the recording of musculoskeletal disorders only when they are diagnosed by a health care professional or identified by a medical test result (see, *e.g.*, Exs. 15: 20, 22, 39, 42, 44, 57, 60, 78, 82, 121, 126, 146, 173, 199, 201, 218, 225, 242, 246, 247, 248, 259, 272, 288, 289, 303, 318, 324, 332, 335, 341, 342, 348, 351, 355, 356, 357, 364, 366, 378, 384, 397, 414, 424, 440, 441). The National Electrical Contractors Association (NECA) requested that ''OSHA modify the current criteria to state ''Positive x-ray showing broken bones or fracture, diagnosis of broken teeth, or diagnosis of acute soft tissue damages'' (Ex. 15: 126). The United Technologies Company (UTC) agreed that ''MSDs should only be recorded if the diagnosis is made by a health care provider operating within the scope of his or her specialty'' (Ex. 15: 440). The National

Coalition on Ergonomics (Ex. 15: 366) urged OSHA to limit the recording of MSD cases to those diagnosed by highly qualified health care professionals:

> [O]SHA should not encourage unqualified individuals to ''diagnose'' musculoskeletal disorders given the present state of medical knowledge of their causes and cures. * * * Therefore, OSHA should limit in the definition of musculoskeletal disorders the diagnosis to qualified and trained physicians, and such other practitioners as are accepted by the medical community as having the training and skill necessary to adequately and appropriately treat these cases.

Other commenters expressed similar opinions, arguing that the work relationship of a given case should be determined by a health care professional (see, *e.g.*, Exs. 15: 9, 105, 248, 249, 250, 262, 272, 288, 303, 304, 324, 366, 397, 408, 440). The Footwear Industries of America (Ex. 15: 249) recommended that ''An MSD should be recordable only if it is diagnosed by a health-care provider based on a determination that the MSD is clearly work-related—that is, caused by the work environment.'' The American Dental Association (Ex. 15: 408) suggested that ''OSHA should not require employers to keep records of musculoskeletal disorders unless and until a physician identifies work as the ''predominant cause'' in a given case.'' United Technologies Company recommended that the health care provider use a check list to make this determination: ''UTC also believes that the provider should be required to complete a check list regarding work relatedness with the language changed to include predominantly caused by the work environment and the submittal of information by the employer'' (Ex. 15: 440).

The Northrop Grumman Association (Ex. 15: 42) suggested that ''Recordability should only be based on objective, documented findings by a licensed physician. In [proposed] mandatory Appendix B, recordability is defined as diagnosis by a health care provider and/or objective findings. The 'or' should be deleted. Only positive test findings should denote recordability. There are physicians who diagnose cases without any objective tests to confirm their diagnosis.'' Other commenters (see, *e.g.*, Exs. 15: 44, 386, 330, 332) recommended that MSD cases be recorded only when they are diagnosed by a health care provider and/or are identified by a positive test result *and* meet the general recording criteria.

A few commenters argued that a health care professional's diagnosis should not be considered evidence of work-relatedness (see, *e.g.*, Exs. 15: 347, 363, 409). For example, the American Automobile Manufacturers Association (AAMA) remarked that ''[w]e strongly oppose the recording of a musculoskeletal disorder based solely on the diagnosis by a health care provider. A diagnosis, in and of itself, does not reflect whether a musculoskeletal disorder is significant or serious in nature. Health care providers record a description or diagnosis of an employee's complaint whether minor or serious.'' On the other hand, the American Federation of State, County, and Municipal Employees (Ex. 15: 362) argued that ''[w]orkers may not see a health care professional until after they have endured symptoms for an extended period * * * The reality of the situation is that a great number of workers who suffer from symptoms will not be diagnosed by a health care provider unless or until their condition becomes severe and/or disabling.''

As discussed in the preamble to the work relationship section of the final rule (§ 1904.5), an employer is always free to consult a physician or other licensed health care professional to assist in making the determination of work relationship in individual injury or illness cases, including musculoskeletal disorders. If a physician or other licensed health care professional has knowledge of the employee's current job activities and work conditions, work history, and the work environment, he or she can often use that information, along with the results of a medical evaluation of the worker, to reach a conclusion about the work-relatedness of the condition. Relying on the expertise of a knowledgeable health care professional can be invaluable to the employer in those infrequent cases for which it is not clear whether workplace events or exposures caused or contributed to the MSD or significantly aggravated pre-existing symptoms. Employers may also obtain useful information from ergonomists, industrial engineers, or other safety and health professionals who have training and experience in relevant fields and can evaluate the workplace for the presence of ergonomic risk factors.

However, OSHA does not require employers to consult with a physician or other licensed health care professional or to have the employee undergo medical tests when making work-relationship determinations. The Agency finds that doing so would be both unnecessary and impractical in the great majority of cases and would result both in delaying the recording of occupational MSD cases and increasing medical costs for employers.

In most situations, an evaluation by a physician or other licensed health care professional is simply not needed in order to make a recording decision. For example, if a worker strains a muscle in his or her back lifting a heavy object, and the back injury results in days away from work, there is no doubt either about the work-relationship of the case or its meeting of the recording criteria. Similarly, if a worker performing a job that has resulted in MSDs of the wrist in other employees reports wrist pain and restricted motion, and the employer places the employee on restricted work, the case is recordable and there is no need to await a clinical diagnosis.

Recording of MSD Symptoms

In the preamble to the proposed rule (61 FR 4047), OSHA asked:

> There is a concern that the proposed criteria [for recording MSDs] will result in a situation where workers could be working with significant pain for an extended period of time, without their case being entered into the records. OSHA has been asked to consider an additional recording criterion for these cases: record when the employee reports symptoms (pain, tingling, numbness, etc.) persisting for at least 7 calendar days from the date of onset. OSHA asks for input on this criterion.

Some commenters urged OSHA to require employers to record MSD cases where an employee reports symptoms that have persisted for at least 7 calendar days (see, *e.g.*, Exs. 15: 87, 129, 186, 362, 369, 371, 374, 380). The American Federation of State County and Municipal Employees, AFL–CIO (AFSCME) recommended:

> Under-reporting of MSDs will increase if OSHA adopts this proposal. It has been AFSCME's experience that workers experiencing pain, soreness, tenderness, numbness, tingling and other sensations in their extremities or back do not immediately report these symptoms to their employer. Rather, most employees first attempt to alleviate their symptoms on their own: they ingest medications, use topical solutions, apply heat or cold to affected areas, or utilize other remedies in their attempt to relieve pain, aches, stiffness, or other symptoms. OSHA should require that these cases be recorded when symptoms last for seven consecutive days.
>
> Investigations conducted by AFSCME repeatedly demonstrate that inclusion of the additional criterion is necessary in order to ascertain accurately the number of work-related MSDs. Employer records typically show MSD rates at or even well below ten percent of employees at risk for these injuries. However, results of AFSCME-conducted symptom surveys show that it is common for a third or more of the employees to respond that they have felt pain, numbness, tingling, or other symptoms that have persisted for more than seven days.* * *

AFSCME wishes to emphasize that accurate and complete recording of MSDs is critically important. Early detection, proper medical intervention, and appropriate measures to address ergonomic risk factors in the workplace are all necessary to prevent and manage MSDs (Ex. 15: 362).

Many commenters objected to the proposed 7-day symptom recording concept (see, *e.g.*, Exs. 15: 9, 20, 39, 122, 127, 128, 170, 230, 246, 248, 281, 289, 324, 330, 332, 341, 359, 378, 397, 406, 434). David E. Jones of the law firm of Ogletree, Deakins, Nash, Smoak & Stewart (Ex. 15: 406) stated that this provision was unnecessary because ''[t]he prevalent experience has shown that employers typically record those symptoms when they result in medical treatment, restricted work activity, or days away from work.'' The Eli Lilly Company (Ex. 15: 434) also observed that ''[b]ased on input from [our] occupational health physicians, the vast majority of MSD-type cases would manifest into objective findings or a MSD diagnosis after 7 calendar days of legitimate subjective symptoms.''

Other objections to the proposal's 7-day symptom trigger were based on practical considerations. Many commenters were opposed to recording undiagnosed conditions that persist for seven days on the grounds that the seriousness or veracity of the complaint of pain or other symptoms could not be established by the employer (see, *e.g.*, Exs. 15: 9, 20, 39, 121, 122, 127, 128, 170, 218, 230, 246, 248, 281, 289, 359, 366, 397). For example, the Dayton Hudson Corporation (Ex. 15: 121) stated: ''[s]elf-reporting of symptoms with no medical findings or evaluation is an invitation for abuse. Are these cases work-related or serious? Are they even real?'' Clariant Corporation held the view that ''[d]isgruntled employees could use subjective findings as a means of avoidance. It could be used to prevent them from doing a job or task they do not like'' (Ex. 15: 217). The National Coalition on Ergonomics (Ex. 15: 366) opposed any recordation based on symptoms alone, stating:

First, persistent pain is a symptom, not a disorder, and therefore cannot be a case. There is often no indication that persistent pain is work-related, except that as the person becomes more fatigued, the pain may appear or become more intense. Further, because pain is subjective, there is no way to quantify it so as to focus only on serious cases. Finally, pain can exist without an underlying pathology. Pain in and of itself cannot be a case in the absence of a diagnosis by a qualified medical practitioner, provided that the case is serious, disabling or significant.

Second, other symptoms mentioned in OSHA's question do not represent cases either. As we discuss below, individual symptoms are not illnesses; symptoms, in conjunction with appropriate signs and/or laboratory results are essential to diagnose specific conditions.

Since symptoms do not define cases, OSHA cannot—indeed, should not—require employers to record complaints of uncertain validity and non-specific origin. It is perhaps true that such employees should see a trained physician or other practitioner, but only after this event will there be a case to record, if one exists at all.

Linda Ballas & Associates (Ex. 15: 31) expressed a different concern, namely that ''[i]f an employee is experiencing pain, or reports symptoms—the clock should not have to click to 7 days before the case is recordable. This will lead to under recording and under reporting * * *.''

In response to the comments on this issue, OSHA finds that pain and/or other MSD symptoms, of and by themselves, may indicate an injury or illness. In this regard, MSD cases are not different from other types of injury or illness. As discussed in the preamble to the definitions section of the final rule (Subpart G), symptoms such as pain are one of the primary ways that injuries and illnesses manifest themselves. If an employee reports pain or other symptoms affecting the muscles, nerves, tendons, etc., the incident must be evaluated for work-relatedness, and, if determined by the employer to be work-related, must be tested against the recording criteria to determine its recordability. If it is determined by the employer to be recordable, it must be recorded as an MSD on the OSHA 300 Log.

The ICD–9–CM manual, the *International Classification of Diseases, Clinical Modification* (ICD–CM), the official system of assigning codes to diagnoses of disease, injury and illness, lists several MSD conditions that consist only of pain. That is, when health care professionals diagnose these disease states, they do so on the basis of employee-reported pain (health care professionals often evaluate and confirm such reports by physical examination when making a diagnosis). According to the National Center for Health Statistics (NCHS), the agency responsible for the coordination of all official disease classification activities in the United States relating to the International Classification of Diseases (ICD), the ICD–CM is the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the United States, and is used to code and classify morbidity data from inpatient and outpatient records, physicians' offices, and most NCHS surveys. The following table includes a few illustrative examples of ICD illness codes for pain-related disorders that would be considered MSD cases under OSHA's definition and would thus warrant an evaluation of work-relatedness by the employer.

ICD code	Name and description
723.1	Cervicalgia—Pain in neck.
724.1	Pain in thoracic spine.
724.2	Lumbago—Low back pain.
724.5	Backache, unspecified.

(NCHS Internet home page, http://www.cdc.gov/nchswww/about/otheract/icd9)

Pain is a symptom that generally indicates the existence of some underlying physiological condition, such as inflammation, damage to a spinal disc, or other biomechanical damage. The occurrence of pain or other symptoms (such as, in the case of MSDs, tingling, burning, numbness, etc.) is thus indicative of an incident that warrants investigation by the employer for work-relatedness, the first step in the injury and illness reporting and recording process. The occurrence of pain or other symptoms, however, is not enough, in the absence of an injury or illness that meets one or more of the recording criteria, to make any injury or illness (including an MSD case) recordable under Part 1904. Employers are not required to record symptoms unless they are work-related and the injury or illness reaches the seriousness indicated by the general recording criteria, which for MSD cases will almost always be days away from work, restricted work, medical treatment, or job transfer. Thus, the requirements governing the recording of all injuries and illnesses will work to ensure that symptoms such as the aches and pains that most people experience from time to time during their lives, are not automatically recorded on the OSHA Log. These same recording requirements will also ensure that those MSDs that are determined by the employer to be work-related and that also meet one or more of the recording criteria will be captured in the national statistics.

If the employer is concerned that the case is not work-related, he or she can refer the employee to a health care professional for a determination, evaluation, or treatment. In this situation, or when the employee has already obtained medical attention, the physician or other licensed health care professional can help to differentiate between work-related and non-work-related cases, minor aches and pains, or inappropriate employee reports. This is no different for MSD cases than for

other types of injuries and illnesses, and does not represent a new problem in the determination of work-related injury and illness. There have always been disputes between workers and employers over the existence of an injury or illness and whether it is work-related. If an employer subsequently demonstrates that a worker is malingering or determines that an injury or illness or is not work-related (using OSHA's definition of work-related), the employer may remove the recorded entry from the OSHA 300 Log.

Although OSHA believes that pain or other symptoms indicate an injury or illness that warrants additional analysis, the final rule has not adopted persistent symptoms alone, whether lasting for 7 days or any other set time period, as an automatic recording criterion. OSHA is concerned about workers who experience persistent pain for any reason, and such pain, if work-related, may well warrant an inquiry into the employee's work conditions and the taking of administrative actions. However, pain or other symptoms, standing alone, have not ordinarily been captured by the OSHA recordkeeping system, and OSHA has accordingly not adopted persistent musculoskeletal pain as a recording criterion, for the following reasons.

First, as discussed earlier, OSHA does not believe that MSD cases should receive differential treatment for recording purposes, and the final rule does not contain different criteria for recording MSD cases; instead, it relies on the general criteria of § 1904.7 to capture MSD cases. OSHA finds that, for recordkeeping purposes, MSD pain is no different in nature than the pain caused by a bruise, cut, burn or any other type of occupational injury or illness. For example, the OSHA rule does not contain a criterion requiring that if a burn, cut or bruise results in pain for seven days it is automatically recordable. Creating a special provision for MSD pain would create an inconsistency in the rule.

Further, OSHA believes that the provisions of the final recordkeeping rule, taken together will appropriately capture reliable, consistent, and accurate data on MSD cases. Incorporating a clear definition of MSDs, clarifying the rule's requirements for determining work-relatedness; and refining the definitions of restricted work, first aid and medical treatment; will all work together to improve the quality of the Log data on MSDs. OSHA concludes, based on an analysis of the record evidence on MSDs, that the general recording criteria will enhance the data on work-related, non-minor MSDs occurring in the workplace, and that an additional ''persistent pain'' criterion is unnecessary for purposes of the recordkeeping system.

New hires

Some commenters encouraged OSHA to find a way to exclude MSD cases that involve minor muscle soreness in newly hired employees, i.e., to allow employers to not record MSDs occurring during a ''break-in'' period (see, *e.g.*, Exs. 15: 27, 31, 39, 82, 87, 105, 186, 198, 204, 221, 239, 272, 283, 289, 303, 330, 359, 374, 412, 440). For example, the American Meat Institute (Ex. 15: 330) remarked: ''Employees returning from vacation, or other extended break periods from the job function, could have normal muscle aches to which hot/cold packs could provide relief. Recording such cases would not meet the purpose [of the OSHA Act] either.'' On the same topic, the National Safety Council (Ex. 15: 359) wrote:

> The concept of forgiveness for a short period of adjustment to return to work makes good sense in industries that are traditionally very resistant to early return to work programs. If allowing for a short ''break-in'' period helps get workers safely and comfortably back to full productivity and earning capacity it should be seriously considered. The Council recommends, however, that no specific method be developed in the proposed rule because situations may vary greatly from industry to industry.

The Harsco Corporation (Ex. 15: 105) suggested ''Construction activities can be a physically demanding occupation. If a person hasn't worked in a period of time, the first couple of days can be very tough. To transfer a person to a different task which would allow for the affected body part to rest should have no bearing on recordability if no other treatment is required.''

Other commenters disagreed, however, that a recording exemption for injuries occurring during a break-in period was appropriate (see, *e.g.*, Exs. 15: 68, 359, 371). For example, the State of New York Workers' Compensation Board (Ex. 15: 68) stated that:

> As to the exclusion of minor soreness commonly occurring to newly hired employees or employees on a rehab assignment during a ''break-in stage'', we do not envision any reason to exclude reporting solely on this basis. The criteria should not be to whom the injury happens, but rather whether the injury would otherwise be reportable regardless of who is injured.

The United Food and Commercial Workers Union (UFCW) argued:

> We could not disagree more with the agency. The current proposal in fact screens out all fleeting cases, and includes only those cases that are serious, have progressed and become debilitating. Only those cases with serious medical findings, lost workdays, restricted days and those receiving medical treatment are currently recordable—not those with fleeting pain that goes away with a good nights rest (Ex. 15: 371).

After a review of the record on this topic, OSHA finds that no special provision for newly hired or transferred workers should be included in the final rule. As the National Safety Council stated, it would be very difficult to identify a single industry-wide method for dealing with break-in or work conditioning periods. Any method of exempting such cases would risk excluding legitimate work-related, serious MSD cases. A newly hired employee can be injured just as easily as a worker who has been on the job for many years. In fact, inexperience on the job may contribute to an MSD injury or illness. For example, a new worker who is not aware of the need to get assistance to move a heavy load or perform a strenuous function may attempt to do the task without help and be hurt in the process. Cases of this type, if determined to be work-related, are appropriately included in national statistics on occupational injuries and illnesses.

OSHA notes that minor muscle soreness, aches, or pains that do not meet one or more of the general recording criteria will not be recorded on the OSHA 300 Log. Therefore, the system already excludes minor aches and pains that may occur when employees are newly hired, change jobs, or return from an extended absence. These cases will be recorded only if they reach the level of seriousness that requires recording. The final rule's definition of first aid includes hot/cold treatments and the administration of non-prescription strength analgesics, two of the most common and conservative methods for treating minor muscle soreness. Thus, the final rule allows newly hired workers to receive these first aid treatments for minor soreness without the case being recordable.

The Ergonomics Rulemaking

Many of the comments OSHA received on the proposed recordkeeping rule referred to OSHA's efforts to develop an ergonomics standard. Several commenters argued that OSHA was trying, through the recordkeeping rule, to collect data to support an ergonomics standard (see, *e.g.*, Exs. 22, 183, 215, 304, 346, 397). Typical of these views was that of the National Beer Wholesalers Association (NBWA) (Ex. 15: 215):

NBWA is especially troubled by the likelihood that the new definitions of what injuries must be recorded and reported in the current proposed rule are intended artificially to inflate the number of reported musculoskeletal disorders, whether work-related or not. Such a surge in MSDs could be used to justify additional work on a workplace ergonomics rule despite the notable lack of a scientific basis for regulation in this area.

Other commenters believed that OSHA was using the recordkeeping rule to conduct a ''backdoor rulemaking'' to control ergonomics hazards in the workplace (see, *e.g.*, Exs. 15: 86, 215, 287, 304, 404, 412, 426). For example, the Reynolds Aluminum Company stated that:

Reynolds supports the inclusion of musculo-skeletal disorders (MSDs) on the OSHA log, but does not support the industry-wide application of the Ergonomics Program Management Guidelines For Meatpacking Plants as the criteria for determining recordability. By incorporating these guidelines into Appendix B, OSHA would be implementing an ergonomics program. It would be inappropriate and without legal or scientific basis to burden all industries with ergonomic guidelines designed for a specific, unique industry (Ex. 15: 426).

Several commenters stated that the injury and illness recordkeeping rules should not address musculoskeletal disorders until after an ergonomics standard has been completed (see, *e.g.*, Exs. 15: 13, 95, 393). For example, Entergy Services, Inc. (Ex. 15: 13) expressed the following concerns:

This area is of concern since there is no standard that really covers this issue except the meat packers standard * * * It is believed that to record this type case, a standard should be in place or language should be written to look at true disorders with long term effect as compared to short term symptoms.

Many commenters also made comments on the overall debate about ergonomics, *i.e.,* that the medical community has not reached consensus on what constitutes an MSD (see, *e.g.*, Exs. 15: 116, 1267, 323, 355), that there is too much scientific uncertainty about the issue of ergonomics (see, *e.g.*, Exs. 15: 57, 215, 304, 312, 342, 344, 355, 393, 397, 412, 424), that science and medicine cannot tell what is work-related and what is not (see, *e.g.*, Exs. 15: 204, 207, 218, 323, 341, 342, 3546, 408, 412, 424, 443), that OSHA needs to do more research before issuing a rule (Ex. 15: 234), that ''musculoskeletal disorder'' is a vague category (Ex. 15: 393), and that OSHA should drop the issue until the science is better (Ex. 15: 204).

OSHA does not agree that the provisions on the recording of MSDs contained in this recordkeeping rule would conflict in any way with OSHA's ergonomics rulemaking. Unlike the proposed ergonomics standard, the final ergonomics standard does not use an OSHA recordable case as a ''trigger'' that would require an employer to implement an ergonomics program. As a result, a recordable musculoskeletal disorder does not necessarily mean that the employer is required to implement an ergonomics program. The recordkeeping rule's provisions on the reporting of MSDs simply address the most consistent and appropriate way to record injury and illness data on these disorders. MSDs, like all other injuries and illnesses, must be evaluated for their work-relatedness and their recordability under the recordkeeping rule's general recording criteria; only if the MSD meets these tests is the case recordable. Additionally, OSHA has required the recording of MSDs for many years.

The recordkeeping rule and the ergonomics standard treat MSDs somewhat differently because the purpose of the two rules is different. Thus, although many of the requirements in the two rules are the same, some requirements reflect the different purposes of the two rulemakings. For example, the recordkeeping rule defines MSDs more broadly than the ergonomics rule because one of the purposes of the Part 1904 recordkeeping system is to gather broad information about injuries and illnesses; the ergonomics standard, in contrast, is designed to protect workers from those MSD hazards the employer has identified in their job. Another difference between the two rules is that the ergonomics standard requires employers to evaluate employee reports of MSD signs and symptoms that last for seven consecutive days, although the recordkeeping rule does not require employers to record signs and symptoms that last for seven consecutive days unless such signs or symptoms involve medical treatment, days of restricted work, or days away from work. The record in the ergonomics rulemaking strongly supported early reporting of MSD signs and symptoms because such early reporting reduces disability, medical costs, and lost productivity. However, evidence in the recordkeeping rulemaking did not support a requirement that persistent signs and symptoms of all occupational injuries and illnesses be recorded on the OSHA Log, and the final recordkeeping rule accordingly contains no such requirement.

Section 1904.29 Forms

Section 1904.29, titled ''Forms,'' establishes the requirements for the forms (OSHA 300 Log, OSHA 300A Annual Summary, and OSHA 301 Incident Report) an employer must use to keep OSHA Part 1904 injury and illness records, the time limit for recording an injury or illness case, the use of substitute forms, the use of computer equipment to keep the records, and privacy protections for certain information recorded on the OSHA 300 Log.

Paragraph 1904.29(a) sets out the basic requirements of this section. It directs the employer to use the OSHA 300 (Log), 300A (Summary), and 301 (Incident Report) forms, or equivalent forms, to record all recordable occupational injuries and illnesses. Paragraph 1904.29(b) contains requirements in the form of questions and answers to explain how employers are to implement this basic requirement. Paragraph 1904.29(b)(1) states the requirements for: (1) Completing the establishment information at the top of the OSHA 300 Log, (2) making a one- or two-line entry for each recordable injury and illness case, and (3) summarizing the data at the end of the year. Paragraph 1904.29(b)(2) sets out the requirements for employers to complete the OSHA 301 Incident Report form (or equivalent) for each recordable case entered on the OSHA 300 Log. The requirements for completing the annual summary on the Form 300A are found at Section 1904.32 of the final rule.

Required Forms

OSHA proposed to continue to require employers to keep both a Log (Form 300) and an Incident Report form (Form 301) for recordkeeping purposes, just as they have been doing under the former rule. OSHA received no comments on the use of two forms for recordkeeping purposes, i.e., a Log with a one-line entry for each case and a supplemental report that requires greater detail about each injury or illness case. OSHA has therefore continued to require two recordkeeping forms in the final rule, although these have been renumbered (they were formerly designated as the OSHA 200 Log and the OSHA 101 Supplementary Report).

In addition to establishing the basic requirements for employers to keep records on the OSHA 300 Log and OSHA 301 Incident Report and providing basic instructions on how to complete these forms, this section of the rule states that employers may use two lines of the OSHA 300 Log to describe

an injury or illness, if necessary. Permitting employers to use two lines when they need more space and specifying this information in the rule and on the Log responds to several comments (see, *e.g.*, Exs. 37; 15: 138, 389) about the lack of adequate space for descriptive information on the proposed OSHA 300 Log form. OSHA believes that most injury and illness cases can be recorded using only one line of the Log. However, for those cases requiring more space, this addition to the Log makes it clear that two lines may be used to describe the case. The OSHA 300 Log is designed to be a scannable document that employers, employees and government representatives can use to review a fairly large number of cases in a brief time, and OSHA believes that employers will not need more than two lines to describe a given case. Employers should enter more detailed information about each case on the OSHA 301 form, which is designed to accommodate lengthier information.

Deadline for Entering a Case

Paragraph 1904.29(b)(3) establishes the requirement for how quickly each recordable injury or illness must be recorded into the records. It states that the employer must enter each case on the OSHA 300 Log and OSHA 301 Form within 7 calendar days of receiving information that a recordable injury or illness has occurred. In the vast majority of cases, employers know immediately or within a short time that a recordable case has occurred. In a few cases, however, it may be several days before the employer is informed that an employee's injury or illness meets one or more of the recording criteria.

The former recordkeeping rule required each injury or illness to be entered on the OSHA Log and Summary no later than six working days after the employer received information about the case. OSHA proposed to change this interval to 7 calendar days. Several commenters agreed that allowing 7 calendar days would simplify the reporting time requirement and reduce confusion for employers (see, *e.g.*, Exs. 36; 15: 9, 36, 65, 107, 154, 179, 181, 203, 332, 369, 387). Other commenters (see, *e.g.*, Exs. 15: 46, 60, 82, 89, 184, 204, 225, 230, 239, 283, 288, 305, 348, 375, 390, 346, 347, 348, 358, 389, 409, 423, 424, 431) objected to the proposed 7 calendar-day requirement, principally on the grounds that the proposed 7 calendar-day time limit would actually be shorter than the former rule's 6 working-day limit in some situations, such as if a long holiday weekend intervened (see, *e.g.*, Exs. 15: 9, 60, 230, 272, 375).

One commenter urged OSHA to adopt a 21-day period because conducting a thorough investigation to determine whether a case is work-related or a recurrence of an old case can sometimes take longer than 7 or even 10 days (Ex. 15: 184). In the final rule, OSHA is adopting a 7 calendar-day time limit for the recording of an injury or illness that meets the rule's recording criteria. For many employers, the 7 day calendar period will be longer than the former 6 working day period. Although it is true that, in other cases, a 7 calendar-day limit may be slightly shorter than the former rule's 6 working-day limit, the Agency believes that the 7 calendar-day rule will provide employers sufficient time to receive information and record the case. In addition, a simple ''within a week'' rule will be easier for employers to remember and apply, and is consistent with OSHA's decision, in this rule, to move from workdays to calendar days whenever possible. The Agency believes that 7 calendar days is ample time for recording, particularly since the final rule, like the former rule, allows employers to revise an entry simply by lining it out or amending it if further information justifying the revision becomes available. The final rule does contain one exception for the 7 day recording period: if an employee experiences a recordable hearing loss, and the employer elects to retest the employee's hearing within 30 days, the employer can wait for the results of the retest before recording.

Equivalent Forms and Computerized Records

Commenters were unanimous in urging OSHA to facilitate the use of computers and to allow the use of alternative forms in OSHA recordkeeping (see, *e.g.*, Exs. 21, 22, 15:9, 11, 45, 72, 95, 111, 184, 262, 271, 288, 305, 318, 341, 346, 389, 390, 396, 405, 424, 434, 438). The comments of the U.S. West Company (Ex. 15:184) are representative of these views:

> U S WEST strongly supports provisions in the proposed rule that allow ''equivalent'' forms instead of the OSHA Forms 300 and 301. U S WEST also supports the provisions that would allow use of data processing equipment and computer printouts of equivalent forms. These provisions allow employers considerable flexibility and greatly reduced paperwork burdens and costs, especially for larger multi-site employers.

Accordingly, paragraphs 1904.29(b)(4) and (b)(5) of the final rule make clear that employers are permitted to record the required information on electronic media or on paper forms that are different from the OSHA 300 Log, provided that the electronic record or paper forms are equivalent to the OSHA 300 Log. A form is deemed to be ''equivalent'' to the OSHA 300 Log if it can be read and understood as easily as the OSHA form and contains at least as much information as the OSHA 300 Log. In addition, the equivalent form must be completed in accordance with the instructions used to complete the OSHA 300 Log. These provisions are intended to balance OSHA's obligation, as set forth in Section 8(d) of the OSH Act, to reduce information collection burdens on employers as much as possible, on the one hand, with the need, on the other hand, to maintain uniformity of the data recorded and provide employers flexibility in meeting OSHA's recordkeeping requirements. These provisions also help to achieve one of OSHA's goals for this rulemaking: to allow employers to take full advantage of modern technology and computers to meet their OSHA recordkeeping obligations.

Several commenters were concerned that computerized records would make it more difficult for employees to access the records (see, *e.g.*, Exs. 15:379, 380, 418, 438). Representative of these views is a comment from the United Auto Workers (UAW):

> Electronic data collection is an essential step to moving forward, especially regarding data analysis for large worksites. However, as it works today electronic collection can also be an obstacle to prompt availability to persons without direct access to the computer system. For this reason, OSHA should require the availability of electronic information to employees and employee representatives in the same time interval as hard copy information, regardless of whether the computer system is maintained at the site (Ex. 15: 438).

OSHA does not believe that computerization of the records will compromise timely employee, employer or government representative access to the records. To ensure that this is the case, paragraph § 1904.29(b)(5) of the final rule allows the employer to keep records on computer equipment only if the computer system can produce paper copies of equivalent forms when access to them is needed by a government representative, an employee or former employee, or an employee representative, as required by §§ 1904.35 or 1904.40, respectively. Of course, if the employee requesting access to the information agrees to receive it by e-mail, this is acceptable under the 1904 rule.

OSHA also proposed specifically to require that, on any equivalent form, three of the questions on the form asking for details of the injury or illness

(proposed questions 16, 17, and 18) be positioned on the form in the same order and be phrased in identical language to that used on the OSHA 301 Incident Report. The three questions were all designed to obtain more detailed information about how the injury or illness occurred, what equipment or materials the employee was using at the time of the injury or illness, and the activity the employee was engaged in at the time of the injury or illness.

A number of commenters objected to the proposed requirement that, on any equivalent form, these three questions be asked in the same order and be phrased in the same language as on the OSHA Incident Report (see, *e.g.*, Exs. 33; 37; 15: 9, 41, 44, 59, 60, 119, 132, 156, 176, 201, 231, 281, 283, 301, 312, 318, 322, 329, 334, 335, 346). In addition to arguing that such a requirement would be burdensome and prescriptive, these commenters pointed out that the proposed OSHA recordkeeping form was not identical to many State workers' compensation forms (the forms most often used as alternatives to the OSHA forms), which would mean that employers in these States would, in effect, be forced to use the OSHA forms (Ex. 15: 334). Other commenters argued that being required to use a certain format would hamper employers' internal accident investigations (see, *e.g.*, Exs. 15: 44, 176, 322). For example, the Kodak Company remarked:

> In [proposed] section 1904.5(b)(2)—''Questions 16, 17 & 18 must be asked in the same order and using identical language from the Form 301.'' Companies, like Kodak, have well established techniques to ascertain the cause of the injury and illness. This requirement would actually hamper our ability to find the root cause of an accident. This requirement should be eliminated from the rule. (Ex. 15: 322)

The final rule does not include a requirement that certain questions on an equivalent form be asked in the same order and be phrased in language identical to that used on the OSHA 301 form. Instead, OSHA has decided, based on a review of the record evidence, that employers may use any substitute form that contains the same information and follows the same recording directions as the OSHA 301 form, and the final rule clearly allows this. Although the consistency of the data on the OSHA 301 form might be improved somewhat if the questions asking for further details were phrased and positioned in an identical way on all employers' forms, OSHA has concluded that the additional burden such a requirement would impose on employers and workers' compensation agencies outweighs this consideration.

OSHA has revised the wording of these three questions on the final OSHA 301 form to match the phraseology used by the Bureau of Labor Statistics (BLS) in its Annual Survey of Occupational Injuries and Illnesses. By ensuring consistency across both the BLS and OSHA forms, this change will help those employers who respond both to the BLS Annual Survey and keep OSHA records.

Handling of Privacy Concern Cases

Paragraphs 1904.29(b)(6) through (b)(10) of the final rule are new and are designed to address privacy concerns raised by many commenters to the record. Paragraph 1904.29(b)(6) requires the employer to withhold the injured or ill employee's name from the OSHA 300 Log for injuries and illnesses defined by the rule as ''privacy concern cases'' and instead to enter ''privacy concern case'' in the space where the employee's name would normally be entered if an injury or illness meeting the definition of a privacy concern case occurs. This approach will allow the employer to provide OSHA 300 Log data to employees, former employees and employee representatives, as required by § 1904.35, while at the same time protecting the privacy of workers who have experienced occupational injuries and illnesses that raise privacy concerns. The employer must also keep a separate, confidential list of these privacy concern cases, and the list must include the employee's name and the case number from the OSHA 300 Log. This separate listing is needed to allow a government representative to obtain the employee's name during a workplace inspection in case further investigation is warranted and to assist employers to keep track of such cases in the event that future revisions to the entry become necessary.

Paragraph 1904.29(b)(7) defines ''privacy concern cases'' as those involving: (i) An injury or illness to an intimate body part or the reproductive system; (ii) an injury or illness resulting from a sexual assault; (iii) a mental illness; (iv) a work-related HIV infection, hepatitis case, or tuberculosis case; (v) needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material, or (vi) any other illness, if the employee independently and voluntarily requests that his or her name not be entered on the log. Paragraph 1904.29(b)(8) establishes that these are the only types of occupational injuries and illnesses that the employer may consider privacy concern cases for recordkeeping purposes.

Paragraph 1904.29(b)(9) permits employers discretion in recording case information if the employer believes that doing so could compromise the privacy of the employee's identity, even though the employee's name has not been entered. This clause has been added because OSHA recognizes that, for specific situations, coworkers who are allowed to access the log may be able to deduce the identity of the injured or ill worker and obtain innapropriate knowledge of a privacy-sensitive injury or illness. OSHA believes that these situations are relatively infrequent, but still exist. For example, if knowing the department in which the employee works would inadvertently divulge the person's identity, or recording the gender of the injured employee would identifying that person (because, for example, only one woman works at the plant), the employer has discretion to mask or withhold this information both on the Log and Incident Report.

The rule requires the employer to enter enough information to identify the cause of the incident and the general severity of the injury or illness, but allows the employer to exclude details of an intimate or private nature. The rule includes two examples; a sexual assault case could be described simply as ''injury from assault,'' or an injury to a reproductive organ could be described as ''lower abdominal injury.'' Likewise, a work-related diagnosis of post traumatic stress disorder could be described as ''emotional difficulty.'' Reproductive disorders, certain cancers, contagious diseases and other disorders that are intimate and private in nature may also be described in a general way to avoid privacy concerns. This allows the employer to avoid overly graphic descriptions that may be offensive, without sacrificing the descriptive value of the recorded information.

Paragraph 1904.29(b)(10) protects employee privacy if the employer decides voluntarily to disclose the OSHA 300 and 301 forms to persons other than those who have a mandatory right of access under the final rule. The paragraph requires the employer to remove or hide employees' names or other personally identifying information before disclosing the forms to persons other than government representatives, employees, former employees or authorized representatives, as required by paragraphs 1904.40 and 1904.35, except in three cases. The employer may disclose the forms, complete with personally identifying information, (2) only: (i) to an auditor or consultant

hired by the employer to evaluate the safety and health program; (ii) to the extent necessary for processing a claim for workers' compensation or other insurance benefits; or (iii) to a public health authority or law enforcement agency for uses and disclosures for which consent , an authorization, or opportunity to agree or object is not required under section 164.512 of the final rule on Standards for Privacy of Individually Identifiable Health Information, 45 CFR 164.512.

These requirements have been included in § 1904.29 rather than in § 1904.35, which establishes requirements for records access, because waiting until access is requested to remove identifying information from the OSHA 300 Log could unwittingly compromise the injured or ill worker's privacy and result in unnecessary delays. The final rule's overall approach to handling privacy issues is discussed more fully in the preamble discussion of the employee access provisions in § 1904.35.

The Treatment of Occupational Illness and Injury Data on the Forms

The treatment of occupational injury and illness data on the OSHA forms is a key issue in this rulemaking. Although the forms themselves are not printed in the Code of Federal Regulations (CFR), they are the method OSHA's recordkeeping regulation uses to meet the Agency's goal of tracking and reporting occupational injury and illness data. As such, the forms are a central component of the recordkeeping system and mirror the requirements of the Part 1904 regulation. The final Part 1904 rule requires employers to use three forms to track occupational injuries and illnesses: the OSHA 300, 300A, and 301 forms, which replace the OSHA 200 and 101 forms called for under the former recordkeeping rule, as follows:

1. The OSHA Form 300, Log of Work-Related Injuries and Illnesses, replaces the Log portion of the former OSHA Form 200 Log and Summary of Occupational Injuries and Illnesses. The OSHA 300 Log contains space for a description of the establishment name, city and state, followed by a one-line space for the entry for each recordable injury and illness.

2. The OSHA Form 300A, Summary of Work-Related Injuries and Illnesses, replaces the Summary portion of the former OSHA Form 200 Log and Summary of Occupational Injuries and Illnesses. The Form 300A is used to summarize the entries from the Form 300 Log at the end of the year and is then posted from February 1 through April 30 of the following year so that employees can be aware of the occupational injury and illness experience of the establishment in which they work. The form contains space for entries for each of the columns from the Form 300, along with information about the establishment, and the average number of employees who worked there the previous year, and the recordkeeper's and corporate officer's certification of the accuracy of the data recorded on the summary. (These requirements are addressed further in Section 1904.32 of the final rule and its associated preamble.)

3. The OSHA Form 301, Injury and Illness Report, replaces the former OSHA 101 Form. Covered employers are required to fill out a one-page form for each injury and illness recorded on the Form 300. The form contains space for more detailed information about the injured or ill employee, the physician or other health care professional who cared for the employee (if medical treatment was necessary), the treatment (if any) of the employee at an emergency room or hospital, and descriptive information telling what the employee was doing when injured or ill, how the incident occurred, the specific details of the injury or illness, and the object or substance that harmed the employee. (Most employers use a workers' compensation form as a replacement for the OSHA 301 Incident Report.)

The use of a three-form system for recordkeeping is not a new concept. The OSHA recordkeeping system used a separate summary form from 1972 to 1977, when the Log and Summary forms were combined into the former OSHA Form 200 (42 FR 65165). OSHA has decided that the three-form system (the 300 Log, the 300A summary, and the 301 Incident Report) has several advantages. First, it provides space for more cases to be entered on the Log but keeps the Log to a manageable size. Second, it helps to ensure that an injured or ill employee's name is not posted in a public place. When the forms were combined in 1977 into a single form, employers occasionally neglected to shield an employee's name on the final sheet of the 200 Log, even though the annual summary form was designed to mask personal identifiers. The use of a separate 300A summary form precludes this possibility. Third, the use of a separate summary form (the final rule's Form 300A) allows the data to be posted in a user-friendly format that will be easy for employees and employers to use. Fourth, a separate 300A Form provides extra space for information about an employee's right to access the Log, information about the establishment and its employees, and the dual certifications required by § 1904.32 of the rule. Finally, a separate 300A Form makes it easier to attach to the reverse side of the form worksheets that are designed to help the employer calculate the average number of employees and hours worked by all employees during the year.

The majority of the changes to the final forms (compared with the forms used with the former rule and the proposed forms) have been made to reflect the requirements of the final rule and are needed to align the forms with the final regulatory requirements. All of the other changes to the forms reflect formatting and editorial changes made to simplify the forms, make them easier to understand and complete, and facilitate use of the data. The forms have been incorporated into an information package that provides individual employers with several copies of the OSHA 300, 300A, and 301 forms; general instructions for filling out the forms and definitions of key terms; an example showing how to fill out the 300 Log; a worksheet to assist employers in computing the average number of employees and the total number of hours worked by employees at the establishment in the previous year; a non-mandatory worksheet to help the employer compute an occupational injury and illness rate; and instructions telling an employer how to get additional help by (1) accessing the OSHA Internet home page, or (2) by calling the appropriate Federal OSHA regional office or the OSHA approved State-Plan with jurisdiction. The package is included in final rule Section VI, Forms, later in this preamble.

The Size of the OSHA Recordkeeping Forms

The OSHA recordkeeping forms required by the final Part 1904 recordkeeping rule are printed on legal size paper (8½″ x 14″). The former rule's Log was an 11 by 17-inch form, the equivalent of two standard 8½ by 11-inch pages. The former 200 Log was criticized because it was unwieldy to copy and file and contained 12 columns for recording occupational injury and occupational illness cases. The proposed OSHA 300 Log and Summary would have fit on a single 8½ by 11-inch sheet of paper (61 FR 4050), a change that would have been made possible by the proposed elimination of redundancies on the former 200 Log and of certain data elements that provided counts of restricted workdays and separate data on occupational injury and illness cases. The proposed OSHA 300 Form was favorably received by a

large number of commenters (see, *e.g.*, Exs. 19, 44, 15: 48, 157, 246, 307, 347, 351, 373, 374, 378, 384, 391, 395, 396, 427, 434, 441, 443). For example, the National Association of Plumbing-Heating-Cooling Contractors (NAPHCC) stated:

> NAPHCC applauds the Agency's efforts to simplify the Injury and Illness Log and Summary in the form of a new Form 300 and Form 301. Employers will be more comfortable with the one-page forms—they appear less ominous than the oversized 200 Form and therefore have a better chance of being completed in a timely and accurate manner (Ex. 15: 443, p. 6).

A number of commenters were concerned that proposed the 300 form would fail to capture important data and argued that the former Log should be retained (see, *e.g.*, Exs. 15:15, 47, 283, 369, 429, 438). The primary argument of this group of commenters was that the size of the form should not determine which data elements were included on the Log and which were not. The comment of the International Union, United Automobile, Aerospace & Agricultural Implement Workers of America—UAW summed up this position: ''The UAW uses this data on a yearly basis when it becomes available at the national level, and on a daily basis at the plant level. Compared to the value of the summary data and data series, the goal of reducing the size of the form to something easily Xeroxed is silly'' (Ex. 15: 438, p. 2). The International Brotherhood of Teamsters commented ''OSHA believes the change results in a simplified form that fits on a standard sheet of paper that can be easily copied and kept on a personal computer. * * * The storage capacity of an additional page in a personal computer is hardly burdensome. The amount of information that can be collected should always be need based, and never be limited to what an 8½″ x 11″ sheet of paper can hold'' (Ex. 15: 369, p. 49).

OSHA agrees that the proposed Log would have resulted in a significant loss of useful data and has therefore maintained several data fields on the final OSHA 300 Log to capture counts of restricted work days and collect separate data on occupational injuries and several types of occupational illness. However, there is a limit to the information that can be collected by any one form. OSHA wishes to continue to make it possible for those employers, especially smaller employers, who wish to keep records in paper form to do so. It is also important that the Log be user-friendly, easily copied and filed, and otherwise manageable. Although a form 8½ x 11 inches in size would be even easier to manage, OSHA has concluded that a form of that size is too small to accommodate the data fields required for complete and accurate reporting.

Accordingly, OSHA has redesigned the OSHA 300 Log to fit on a legal size (8½ x 14 inches) piece of paper and to clarify that employers may use two lines to enter a case if the information does not fit easily on one line. The OSHA forms 300A and 301, and the remainder of the recordkeeping package, have also been designed to fit on the same-size paper as the OSHA 300 Log. For those employers who use computerized systems (where handwriting space is not as important) equivalent computer-generated forms can be printed out on 8½ x 11 sheets of paper if the printed copies are legible and are as readable as the OSHA forms.

Commenters raised four major issues concerning the OSHA 300 Log: (1) Defining lost workdays (discussed below); (2) collecting separate data on occupational injury and occupational illness (discussed below); (3) collecting separate data on musculoskeletal disorders (discussed below and in the summary and explanation associated with § 1904.12; and (4) recurrences (discussed in the summary and explanation associated with § 1904.6, Determination of new cases). In addition, commenters raised numerous minor issues concerning the 300 Log data elements and forms design; these are discussed later in this section.

Defining Lost Workdays

OSHA proposed to eliminate the term ''lost workdays,'' by replacing it with ''days away from work'' (61 FR 4033). The OSHA recordkeeping system has historically defined lost workdays as including both days away from work and days of restricted work activity, and the *Recordkeeping Guidelines* discussed how to properly record lost workday cases with days away from work and lost workday cases with days of restricted work activity (Ex. 2, p. 47, 48). However, many use the term ''lost workday'' in a manner that is synonymous with ''day away from work,'' and the term has been used inconsistently for many years. Many commenters on the proposal agreed that the term ''lost workday'' should be deleted from the forms and the recordkeeping system because of this confusion (see, *e.g.*, Exs. 33; 37; 15: 9, 26, 69, 70, 105, 107, 136, 137, 141, 146, 176, 184, 204, 224, 231, 266, 271, 272, 273, 278, 281, 287, 288, 301, 303, 305, 347, 384, 414, 428). The Akzo Nobel Chemicals Company (Ex. 37) simply commented ''[a] big ATTA BOY for removing restricted work cases from under the lost time umbrella. They never really belonged there.'' William K. Principe of the law firm of Constangy, Brooks & Smith, LLC, stated that:

> The elimination of the term ''lost work days'' is a good idea, because its use under the existing recordkeeping regulations has been confusing. Recordkeepers have equated ''lost work days'' with ''days away from work,'' but have not thought that ''lost work days'' included days of ''restricted work activity.'' Thus, the elimination of ''lost work days'' will result in more understandable terminology.

The Hoffman-La Roche, Inc. company agreed with OSHA's proposal to eliminate the term lost workdays from the system, stating that ''[t]he term ''lost workdays'' is confusing and does not clearly define whether the case involved days away from work or restricted days. However, the term ''lost workday case'' still has a place in defining a case that has either days away from work or restricted days.'' The Jewel Coal and Coke Company (Ex. 15: 281) remarked that:

> [w]e believe that the listing of restricted work injuries/illnesses has its purpose as to the consideration of the seriousness of the injury or illness. However, we believe that restricted work duty injuries/illnesses should be placed in a separate category from days away from work and should not be considered as serious as accidents with days away from work but are in fact more serious than first Aid cases or other medically reportable cases. We believe that the listing of the date of return of the employee to full work activities may very well have it's place on the OSHA Form 301 or other supplemental forms.

In the final rule, OSHA has eliminated the term ''lost workdays'' on the forms and in the regulatory text. The use of the term has been confusing for many years because many people equated the terms ''lost workday'' with ''days away from work'' and failed to recognize that the former OSHA term included restricted days. OSHA finds that deleting this term from the final rule and the forms will improve clarity and the consistency of the data.

The 300 Log has four check boxes to be used to classify the case: death, day(s) away from work, days of restricted work or job transfer; and case meeting other recording criteria. The employer must check the single box that reflects the most severe outcome associated with a given injury or illness. Thus, for an injury or illness where the injured worker first stayed home to recuperate and then was assigned to restricted work for several days, the employer is required only to check the box for days away from work (column I). For a case with only job transfer or restriction, the employer must check the

box for days of restricted work or job transfer (Column H). However, the final Log still allows employers to calculate the incidence rate formerly referred to as a ''lost workday injury and illness rate'' despite the fact that it separates the data formerly captured under this heading into two separate categories. Because the OSHA Form 300 has separate check boxes for days away from work cases and cases where the employee remained at work but was temporarily transferred to another job or assigned to restricted duty, it is easy to add the totals from these two columns together to obtain a single total to use in calculating an injury and illness incidence rate for total days away from work and restricted work cases.

Counting Days of Restricted Work or Job Transfer

Although the final rule does not use the term ''lost workday'' (which formerly applied both to days away from work and days of restricted or transferred work), the rule continues OSHA's longstanding practice of requiring employers to keep track of the number of days on which an employee is placed on restricted work or is on job transfer because of an injury or illness. OSHA proposed to eliminate the counting of the number of days of restricted work from the proposed 300 Log (61 FR 4046). The proposal also asked whether the elimination of the restricted work day count would provide an incentive for employers to temporarily assign injured or ill workers to jobs with little or no productive value to avoid recording a case as one involving days away from work (61 FR 4046).

A large number of commenters supported OSHA's proposal to eliminate the counting of restricted work days (see, *e.g.*, Exs. 21; 26; 27; 28; 33; 37; 51; 15: 9, 19, 26, 39, 44, 60, 65, 67, 69, 70, 76, 79, 82, 83, 85, 87, 100, 105, 107, 111, 119, 121, 123, 136, 137, 141, 145, 146, 154, 156, 159, 170, 171, 173, 176, 184, 188, 194, 199, 203, 204, 205, 218, 224, 225, 229, 230, 231, 234, 235, 239, 246, 247, 260, 262, 265, 266, 271, 272, 273, 278, 281, 283, 287, 288, 289, 298, 301, 303, 304, 305, 307, 317, 321, 332, 334, 336, 337, 341, 345, 346, 347, 351, 364, 368, 373, 384, 390, 391, 392, 401, 405, 409, 413, 414, 423, 424, 426, 427, 428, 430, 434, 437, 440, 442). For example, the Union Carbide Corporation (Ex. 15: 391) argued that their:

> [e]xperience with tracking lost or restricted workdays the way it is being done today indicates that it is fruitless. The interest is in the number of lost workday or restricted workday cases with only minor attention being given to the number of days involved. Elimination of the term ''lost workdays'' in regard to restricted workdays would surely be a step in the direction of simplicity and focus. The severity of an injury/illness is more clearly indicated by the number of days away from work than by any other means. The inclusion of cases involving restricted work only clouds the issue.

The Monsanto Corporation (Ex. 28) urged the Agency to do away with *all* day counts, noting that Monsanto:

> [u]ses the recordable case as the basis of our performance measurement system. We measure the number of days away and restricted but rarely look at them. We agree that OSHA should eliminate the number of days of restricted work from the requirements but we would also delete the number of days away as well. While the number of days are some measure of ''severity'', we think a better and simpler measure is just the cases rate for fatalities and/or days away cases.

The commenters who argued for eliminating the counting of restricted workdays offered several reasons: (1) Doing away with the counting would simplify the recordkeeping system and reduce burden on employers (see, *e.g.*, Exs. 33; 15: 69, 105, 136, 137, 141, 146, 156, 176, 184, 188, 203, 224, 231, 239, 266, 272, 273, 278, 288, 289, 301, 303, 304, 336, 337, 345, 346, 347, 390, 391, 409, 424, 426, 428, 430, 442); (2) eliminating the day counts would make it easier to computerize the records (see, *e.g.*, Exs. 15: 136, 137, 141, 224, 266, 278); (3) limiting counts of restricted work would match workers' compensation insurance requirements, which typically count only days away from work (see, *e.g.*, Exs. 15: 225, 336); (4) counts of restricted work have little or no value (see, *e.g.*, Exs. 21; 15: 65, 105, 119, 154, 170, 203, 205, 235, 260, 262, 265, 332, 347, 391, 401, 405, 409, 430); (5) restricted workday counts are not used in safety and health programs and their evaluation (see, *e.g.*, Exs. 15: 65, 119, 154, 159, 194, 239, 271, 347, 409, 426, 428); (6) restricted workday counts are not a good measure of injury and illness severity (see, *e.g.*, Exs. 15: 336, 345); and (7) restricted workday counts are not a uniform or consistent measure (see, *e.g.*, Exs. 15: 235, 288, 289, 347, 409, 442).

For example, the National Grain and Feed Association (Ex. 15: 119) argued that ''[t]here is no evidence that the current restricted work activity day counts are being used in safety and health programs and there is no purpose in continuing the restricted work activity count requirement.'' The Tennessee Valley Authority (Ex. 15: 235) argued that ''[o]nly days away from work or death should be recorded on the 300 log. Recording of restricted work-day cases is difficult to consistently record, thereby, not providing a good data base for comparison.''

However, a number of commenters opposed the proposal to eliminate the counting of restricted days (see, *e.g.*, Exs. 35; 15: 31, 34, 41, 61, 72, 74, 181, 186, 281, 310, 350, 359, 369, 371, 380, 438). For example, Linda Ballas & Associates (Ex. 15: 31) argued that:

> [r]estricted work days should be counted. A restricted case with 1 restricted day would be less severe than a restricted work case with 30 days. The elimination of the restricted work activity day count will provide an incentive for employers to temporarily assign injured or ill workers to jobs with little or no productive value to avoid recording a case as one involving days away from work.* * *

Most of these commenters argued that restricted work day data are needed to gauge the severity of an occupational injury or illness (see, *e.g.*, Exs. 15: 31, 34, 41, 181, 186, 310, 369, 371, 438) or that such data are a measure of lost productivity (see, *e.g.*, Exs. 15: 41, 61, 281). The American Association of Occupational Health Nurses stated that ''[O]SHA should be aware that modifications to recording restricted work days will result in the loss of valuable information related to the severity of the injuries/illnesses.'' The Jewel Coal and Coke Company (Ex. 15: 281) stated that:

> We believe that the listing of restricted work injuries/illnesses has its purpose as to the consideration of the seriousness of the injury or illness. However, we believe that restricted work duty injuries/illnesses should be placed in a separate category from days away from work and should not be considered as serious as accidents with days away from work but are in fact more serious than first Aid cases or other medically reportable cases.* * *

The North Carolina Department of Labor (Ex. 15: 186) recommended that:

> [r]estricted work day counts as well as lost work day counts can be measures of the severity of individual illnesses/injuries. In addition through trend analysis lost work day rates and restricted work day rates may be calculated by job, department, etc. to identify higher risk jobs, departments, etc. and/or measure the effectiveness of interventions and progress in the development of a comprehensive ergonomics program.

As to OSHA's question in the proposal about the incentive for employers to offer restricted work to employee's in order to avoid recording a case with days away from work, a number of commenters questioned whether such an incentive exists (see, *e.g.*, Exs. 15: 13, 26, 27, 39, 79, 136, 137, 141, 156, 181, 199, 218, 224, 229, 242, 263, 266, 269, 270, 278, 283, 341, 364, 377, 409, 426, 434, 440). For example,

the United Technologies Company (UTC) stated that ''[U]TC does not believe that the recording or not recording of restricted days will influence management's decision to temporarily assign employees to restricted work. The decision to place an employee on restricted work is driven by workers' compensation costs rather than OSHA incidence rates'' (Ex. 15: 440). The American Textile Manufacturers Association (ATMI) agreed:

> [A]TMI believes that this will not provide an incentive for employers to temporarily assign injured or ill workers to jobs with little or no productive value to avoid recording a case as one involving days away from work. The restricted work activity day count is in no way related to an employer wanting to avoid having days away from work. Workers' compensation claims and, for the most part, company safety awards are based on the number of ''lost-time accidents.'' The counting of restricted work days has never been an incentive or disincentive for these two key employer safety measures and ATMI believes that this will not change. (Ex. 15: 156)

Other commenters, however, believed there could be incentive effects (see, *e.g.*, Exs. 15: 13, 31, 74, 111, 359, 369).

In the final rule, OSHA has decided to require employers to record the number of days of restriction or transfer on the OSHA 300 Log. From the comments received, and based on OSHA's own experience, the Agency finds that counts of restricted days are a useful and needed measure of injury and illness severity. OSHA's decision to require the recording of restricted and transferred work cases on the Log was also influenced by the trend toward restricted work and away from days away from work. In a recent article, the BLS noted that occupational injuries and illnesses are more likely to result in days of restricted work than was the case in the past. From 1978 to 1986, the annual rate in private industry for cases involving only restricted work remained constant, at 0.3 cases per 100 full-time workers. Since 1986, the rate has risen steadily to 1.2 cases per 100 workers in 1997, a fourfold increase. At the same time, cases with days away from work declined from 3.3 in 1986 to 2.1 in 1997 (Monthly Labor Review, June 1999, Vol. 122. No. 6, pp. 11–17). It is clear that employers have caused this shift by modifying their return-to-work policies and offering more restricted work opportunities to injured or ill employees. Therefore, in order to get an accurate picture of the extent of occupational injuries and illnesses, it is necessary for the OSHA Log to capture counts of days away from work *and* days of job transfer or restriction.

The final rule thus carries forward OSHA's longstanding requirement for employers to count and record the number of restricted days on the OSHA Log. On the Log, restricted work counts are separated from days away from work counts, and the term ''lost workday'' is no longer used. OSHA believes that the burden on employers of counting these days will be reduced somewhat by the simplified definition of restricted work, the counting of calendar days rather than work days, capping of the counts at 180 days, and allowing the employer to stop counting restricted days when the employees job has been permanently modified to eliminate the routine job functions being restricted (see the preamble discussion for 1904.7 General Recording Criteria).

Separate 300 Log Data on Occupational Injury and Occupational Illness

OSHA proposed (61 FR 4036–4037) to eliminate any differences in the way occupational injuries, as opposed to occupational illnesses, were recorded on the forms. The proposed approach would not, as many commenters believed, have made it impossible to determine the types and number of cases of occupational illnesses at the aggregated national level, although it would have eliminated the distinction between injuries and illnesses at the individual establishment level. In other words, the proposed approach would have involved a coding system that the BLS could use to project the incidences of several types of occupational illnesses nationally, but would not have permitted individual employers to calculate the incidence of illness cases at their establishments.

Many commenters reacted with concern to the proposal to eliminate, for recording purposes, the distinction between occupational injuries and occupational illnesses, and to delete the columns on the Log used to record specific categories of illnesses (see, *e.g.*, Exs. 15: 213, 288, 359, 369, 407, 418, 429, 438). For example, Con Edison stated that ''Distinguishing between injuries and illness is a fundamental and essential part of recordkeeping'' (Ex. 15: 21), and the National Institute for Occupational Safety and Health (NIOSH) discussed the potentially detrimental effects on the Nation's occupational injury and illness statistics of such a move, stating ''For occupational health surveillance purposes * * * NIOSH recommends that entries on the OSHA log continue to be categorized separately as illnesses and injuries'' (Ex. 15: 407).

Many commenters also criticized OSHA's proposal to delete from the Log the separate columns for 7 categories of occupational illnesses (see, *e.g.*, Exs. 20, 35, 15: 27, 283, 371). These commenters pointed out that these categories of illnesses have been part of the recordkeeping system for many years and that they captured data on illness cases in 7 categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic materials), disorders due to physical agents, disorders associated with repeated trauma, and all other occupational illnesses. Typical of the views of commenters concerned about the proposal to delete these columns from the Log was the comment of the United Auto Workers: ''OSHA should abandon the plan to change the OSHA 200 form to eliminate illness categories. The illness categories in the summary presently provide critically necessary information about cumulative trauma disorders, and useful information about respiratory conditions'' (Ex: 15: 348).

Several commenters supported the proposed concept of adding a single column to the form on which employers would enter illness codes that would correspond to the illness conditions listed in proposed Appendix B, which could then be decoded by government classifiers to project national illness incidence rates for coded conditions (see, *e.g.*, Exs. 20, 15: 27, 369, 371). For example, the United Brotherhood of Carpenters and Joiners of America stated:

> The UBC would recommend [that].* * * A column should be added for an identification code for recordable conditions from Appendix B. (Eg. 1 = hearings loss, 2 = CTD's. 3 = blood lead. Etc.) (Ex. 20).

After a thorough review of the comments in the record, however, OSHA has concluded that the proposed approach, which would have eliminated, for recording purposes, the distinction between work-related injuries and illnesses, is not workable in the final rule. The Agency finds that there is a continuing need for separately identifiable information on occupational illnesses and injuries, as well as on certain specific categories of occupational illnesses. The published BLS statistics have included separate estimates of the rate and number of occupational injuries and illnesses for many years, as well as the rate and number of different types of occupational illnesses, and employers, employees, the government, and the public have found this information useful and worthwhile. Separate illness

and injury data are particularly useful at the establishment level, where employers and employees can use them to evaluate the establishment's health experience and compare it to the national experience or to the experience of other employers in their industry or their own prior experience. The data are also useful to OSHA personnel performing worksite inspections, who can use this information to identify potential health hazards at the establishment.

Under the final rule, the OSHA 300 form has therefore been modified specifically to collect information on five types of occupational health conditions: musculoskeletal disorders, skin diseases or disorders, respiratory conditions, poisoning, and hearing loss. There is also an ''all other illness'' column on the Log. To record cases falling into one of these categories, the employer simply enters a check mark in the appropriate column, which will allow these cases to be separately counted to generate establishment-level summary information at the end of the year.

OSHA rejected the option suggested by the UBC and others (see, *e.g.*, Exs. 20, 15: 27, 369, 371)—to add a single column that would include a code for different types of conditions—because such an approach could require employers to scan and separately tally entries from the column to determine the total number of each kind of illness case, an additional step that OSHA believes would be unduly burdensome. Because the scanning and tallying are complex, this approach also would be likely to result in computational errors.

In the final rule, two of the illness case columns on the OSHA 300 Log are identical to those on the former OSHA Log: a column to capture cases of skin diseases or disorders and one to capture cases of systemic poisoning. The single column for respiratory conditions on the new OSHA Form 300 will capture data on respiratory conditions that were formerly captured in two separate columns, i.e., the columns for respiratory conditions due to toxic agents (formerly column 7c) and for dust diseases of the lungs (formerly column 7b). Column 7g of the former OSHA Log provided space for data on all other occupational illnesses, and that column has also been continued on the new OSHA 300 Log. On the other hand, column 7e from the former OSHA Log, which captured cases of disorders due to physical agents, is not included on the new OSHA Log form. The cases recorded in former column 7e primarily addressed heat and cold disorders, such as heat stroke and hypothermia; hyperbaric effects, such as caisson disease; and the effects of radiation, including occupational illnesses caused by x-ray exposure, sun exposure and welder's flash. Because space on the form is at a premium, and because column 7e was not used extensively in the past (recorded column 7e cases accounted only for approximately five percent of all occupational illness cases), OSHA has not continued this column on the new OSHA 300 Log.

OSHA has, however, added a new column specifically to capture hearing loss cases on the OSHA 300 Log. The former Log included a column devoted to repeated trauma cases, which were defined as including noise-induced hearing loss cases as well as cases involving a variety of other conditions, including certain musculoskeletal disorders. Several commenters recommended that separate data be collected on hearing loss (see, *e.g.*, Exs. 20, 53X, p.76, 15: 31). Dedicating a column to occupational hearing loss cases will provide a valuable new source of information on this prevalent and often disabling condition. Although precise estimates of the number of noise-exposed workers vary widely by industry and the definition of noise dose used, the EPA estimated in 1981 that about 9 million workers in the manufacturing sector alone were occupationally exposed to noise levels above 85 dBA. Recent risk estimates suggest that exposure to this level of noise over a working lifetime would cause material hearing impairment in about 9 percent, or approximately 720,000, U.S. workers (NIOSH, 1998). A separate column for occupational hearing loss is also appropriate because the BLS occupational injury and illness statistics only report detailed injury characteristics information for those illness cases that result in days away from work. Because most hearing loss cases do not result in time off the job, the extent of occupational hearing loss has not previously been accurately reflected in the national statistics. By creating a separate column for occupational hearing loss cases, and clearly articulating in section 1904.10 of the final rule the level of hearing loss that must be recorded, OSHA believes that the recordkeeping system will, in the future, provide accurate estimates of the incidence of work-related loss of hearing among America's workers.

Column on the Log for Musculoskeletal Disorders

Column 7f of the former Log also was intended to capture cases involving repetitive motion conditions, such as carpal tunnel syndrome, tendinitis, etc. These conditions have been called by many names, including repetitive stress injuries, cumulative trauma disorders, and overuse injuries. OSHA has decided to include a separate column on the Log for musculoskeletal disorders (MSDs), the preferred term for injuries and illnesses of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs, including those of the upper extremities, lower extremities, and back. Many MSDs are caused by workplace risk factors, such as lifting, repetitive motion, vibration, overexertion, contact stress, awkward or static postures, and/or excessive force. The repeated trauma column on the former OSHA Log did not permit an accurate count of musculoskeletal disorders, both because other conditions, such as occupational hearing loss, were included in the definition of repeated trauma and because many musculoskeletal disorders—including lower back injuries—were excluded. The column was limited to disorders classified as illnesses, but OSHA instructed employers to record all back cases as injuries rather than illnesses, even though back disorders are frequently associated with exposure to occupational stresses over time (Ex. 2, p. 38).

In its proposal, OSHA asked for comment on the need for a separate column containing information on musculoskeletal disorder (MSD) cases such as low back pain, tendinitis and carpal tunnel syndrome. OSHA received numerous comments opposing the addition of an MSD column to the Log (see, *e.g.*, Exs. 15: 9, 60, 78, 105, 122, 136, 137, 141, 201, 218, 221, 224, 266, 278, 305, 308, 318, 346, 395, 397, 406, 414, 430). These commenters objected on several grounds: because they believed that including such a column would make the forms more complex (Ex. 15: 414), because the column would have ''no utility'' (Ex. 15: 397), or because the column would only capture a small percentage of total MSD cases (Ex. 15: 210). Several commenters objected because they believed that an MSD column would duplicate information already obtained through the case description (see, *e.g.*, Exs. 15: 9, 105, 210, 221, 406). For example, the law firm of Ogletree, Deakins, Nash, Smoak & Stewart offered comments on behalf of a group of employers known as the ODNSS Coalition, remarking that ''The log and system of OSHA recordkeeping would not benefit from a separate column for musculoskeletal disorders. The proposed rules for recording these disorders are clear, and

the revisions to the ''case description'' column appearing on the OSHA Form 300 provide for the ample identification of the disorders, which will enable all interested parties to track and analyze entries of that nature'' (Ex. 15: 406). Another group of commenters contended that a separate MSD column would result in an inaccurate picture of MSD incidence because the numbers recorded would increase as a result of the inclusion of lower back MSDs in the cases to be entered in the column (see, *e.g.*, Exs. 15: 305, 308, 318, 346). Representative of these comments is one from the National Association of Manufacturers (NAM):

> Given the over-inclusive definitions of the terms ''work-related,'' ''injury or illness,'' ''medical treatment'' and ''MSDs'' (in Appendix B), and the fact that, for the first time, back injuries would be included as MSDs, we strongly objected to that idea. Under that approach, the MSD numbers probably would have been huge, would have painted a grossly inaccurate and misleading picture as to the current prevalence of MSDs, and would have been cited as justification for an ergonomics standard. Unless and until those deficiencies are completely eliminated, the NAM remains unalterably opposed to the inclusion of an MSD column on the OSHA Form 300 (Ex. 15: 305).

OSHA also received numerous comments supporting the addition of a separate MSD column on the Log (see, *e.g.*, Exs. 35; 15: 32, 156, 371, 379, 380, 415, 418, 438). For example, the United Food and Commercial Workers stated that:

> Of key concern to our membership is the lack of any categorization for musculoskeletal disorders (MSD). A major concern in meatpacking and poultry plants, our committees will now be forced to spend endless hours poring over the logs, reading each individual definition and deciding whether it is a MSD. The logs are often hand written and xerox copies of these are difficult to read. This is a real burden for workers, companies, joint committees and anyone using the logs (Ex. 15: 371).

After a thorough review of the record, and extensive consultation with NIOSH and the BLS to establish the need for such statistics, OSHA has concluded that including a separate column on the final OSHA 300 Log for MSD cases is essential to obtain an accurate picture of the MSD problem in the United States. In 1997, more than 600,000 MSDs resulting in days away from work were reported to the BLS by employers, although determining this number has required close cooperation between OSHA and the BLS and several ''special runs'' by the BLS (i.e., computer analyses performed especially for OSHA) (see on the Internet at ftp://146.142.4.23/pub/special.requests/ocwc/osh/). OSHA believes that such a column on the OSHA 300 Log will not only permit more complete and accurate reporting of these disorders and provide information on the overall incidence of MSDs in the workplace, it will provide a useful analytical tool at the establishment level. OSHA recognizes that the column will add some complexity to the form, but believes that the additional complexity will be more than offset by the fact that all recordable MSDs will be captured in a single entry on the Log. Thus, the total count of cases in the MSD column will allow employers, employees, authorized representatives, and government representatives to determine, at a glance, what the incidence of these disorders in the establishment is. OSHA does not agree with those commenters who stated that entries in the MSD column will duplicate information recorded in the injury/illness description; the case description column will include additional information, *e.g.*, on the particular type of MSD (back strain, carpal tunnel syndrome, wrist pain, tendinitis, etc.).

OSHA also does not agree with those commenters who argued that including a separate column for MSDs would introduce error into the national statistics on the incidence of MSDs. The views of these commenters are not persuasive because the number of reportable lost-workday MSDs is already being captured in national statistics, albeit under two categories (''injuries'' and ''illnesses'') that are difficult to interpret. In response to comments that including a separate column on the Log will provide OSHA with ''justification for an ergonomics standard,'' the Agency notes that it has already developed and proposed an ergonomics standard despite the absence of a single MSD column on employers' Logs.

Miscellaneous 300 Form Issues

The proposed OSHA Form 300 contained a column designated as the ''Employer Use'' column. Many employers keep two sets of injury and illness records; one for OSHA Part 1904 purposes and another for internal safety management system purposes. OSHA envisioned that the proposed Employer Use column would be used to tailor the Log to meet the needs of the establishment's particular safety and health program and reduce the practice some employers have adopted of keeping multiple sets of occupational injury and illness records for various purposes. For example, OSHA envisioned that an employer could enter codes in this column to collect data on occupational injuries and illnesses beyond what is required by the OSHA Part 1904 regulation, such as the results of accident investigations, whether the case was accepted by workers' compensation, or whether or not the employee was hospitalized for treatment.

A number of commenters supported the proposed Employer Use column (see, *e.g.*, Exs. 15: 87, 136, 137, 141, 170, 224, 266, 278, 359). Some stated that employers could utilize the column to identify cases based on specific criteria that could be used in their internal safety and health evaluations (see, *e.g.*, Exs. 15: 136, 137, 141, 170, 224, 266, 278, 359). For example, the National Safety Council stated ''The Council believes that adding the employer use column to the log will effectively reduce the adverse effects of accountability systems. This will allow employers to identify cases for which supervisors and managers should be held accountable, using company specific criteria'' (Ex. 15: 359, p. 14). Another commenter, Kathy Mull, stated ''The comment on possible use of the 'employer use column' to note cases not included in internal safety statistics is a possible mechanism to defer pressures on internal performance measures as tied strictly to OSHA recordkeeping'' (Ex. 15: 278, p. 4).

Several commenters opposed the addition to the Log of an Employer Use column, however (see, *e.g.*, Exs. 15: 28, 82, 109, 132, 375). Among these was the American Petroleum Institute, which stated ''If the revised regulation meets API's recommended system objectives, the 'employer use' column would not be needed. Cases recorded would then be credible, reasonable and meaningful to employers, employees (and to OSHA). * * * OSHA should consider the employer as the primary user of the system'' (Ex. 15: 375A, p. 55). Commenters also expressed concern that an Employer Use column could have a negative effect on the use of the data. For example, the Sherman Williams Company stated ''It is not necessary to provide column j, for ''other'' information that may be provided by the employer. It will lead to inconsistent utilization of the proposed form. Delete column j of the proposed Form 300'' (Ex. 15: 132, p. 1).

Several other commenters argued for the addition of new data requirements to the OSHA 300 Log, as follows:

Commenter	Suggested addition to the 300 Log
G. Neil Companies (Ex. 15: 29)	Information explaining which employers must keep the Log should be added to the form.
Atlantic Dry Dock Corp. (Ex. 15: 179)	A line to carry over the totals from previous page should be added at the top of the form.
Maine Department of Labor (Ex. 15: 41)	The form should include three columns for case type: a column for days away only, a column for days away and restricted, and a column for restricted only to differentiate the three different types of cases.
Ford Motor Company (Ex. 15: 347)	''To facilitate identification, Ford proposes that the employee's last four numbers of his or her social security number be included on the OSHA 300 and 301 Forms * * * The last four numbers of the social security number will greatly assist in employee identification and at the same time offer some measure of confidentiality.''
American Trucking Associations (Ex. 15: 397)	''OSHA should add a new column to the proposed OSHA 300 form allowing employers to indicate whether an injury occurred off-site. This recommendation is not novel [ ] the current OSHA 101 form asks if the injury or illness occurred on the employer's premises * * * the inclusion of the 'off-site' column is crucial in determining which fixed facilities maintain abnormally high rates of workplace injuries/illnesses. In addition, this recommendation furthers the goal of requiring motor carriers to record injuries and illnesses to their employees as well as provides valuable information to OSHA and others regarding the employer's lack of control over the site of the injury.''

OSHA has not added the fields or columns suggested by commenters to the final 300 or 301 forms because the available space on the form has been allocated to other data that OSHA considers more valuable. In addition, there is no requirement in the final rule for employers to enter any part of an employee's social security number because of the special privacy concerns that would be associated with that entry and employee access to the forms. However, employers are, of course, free to collect additional data on occupational injury and illness beyond the data required by the Agency's Part 1904 regulation.

The OSHA 301 Form

Although the final OSHA 300 Log presents information on injuries and illnesses in a condensed format, the final OSHA 301 Incident Record allows space for employers to provide more detailed information about the affected worker, the injury or illness, the workplace factors associated with the accident, and a brief description of how the injury or illness occurred. Many employers use an equivalent workers' compensation form or internal reporting form for the purpose of recording more detailed information on each case, and this practice is allowed under paragraph 1904.29(b)(4) of the final rule.

The OSHA Form 301 differs in several ways from the former OSHA 101 form it replaces, although much of the information is the same as the information on the former 101 Form, although it has been reworded and reformatted for clarity and simplicity. The final Form 301 does not require the following data items that were included on the former OSHA 101 to be recorded:

—The employer name and address;
—Employee social security number;
—Employee occupation;
—Department where employee normally works;
—Place of accident;
—Whether the accident occurred on the employer's premises; and
—Name and address of hospital.

OSHA's reasons for deleting these data items from the final 301 form is that most are included on the OSHA Form 300 and are therefore not necessary on the 301 form. Eliminating duplicate information between the two forms decreases the redundancy of the data collected and the burden on employers of recording the data twice. The employee social security number has been removed for privacy reasons. OSHA believes that the information found in several other data fields on the 301 Form (*e.g.*, the employee's name, address, and date of birth) provides sufficient information to identify injured or ill individuals while protecting the confidentiality of social security numbers.

OSHA has also added several items to the OSHA Form 301 that were not on the former OSHA No. 101:

—The date the employee was hired;
—The time the employee began work;
—The time the event occurred;
—Whether the employee was treated at an emergency room; and
—Whether the employee was hospitalized overnight as an in-patient (the form now requires a check box entry rather than the name and address of the hospital).

OSHA concludes that these data fields will provide safety and health professionals and researchers with important information regarding the occurrence of occupational injuries and illnesses. The questions pertaining to what the employee was doing, how the injury or illness occurred, what the injury or illness was, and what object or substance was involved have been reworded somewhat from those contained on the former OSHA No. 101, but do not require employers or employees to provide additional information.

Proposed Form 301

The proposed OSHA 301 Injury and Illness Incident Record differed in minor respects from the former OSHA 101. For example, a number of fields would have been eliminated to reduce redundancy between the Log and the Incident Report, and several items would have been added to the Incident Report to obtain additional information about occupational injuries and illnesses. OSHA proposed to add to the Form 301 the following:

—The date the employee was hired;
—The time the employee began work;
—The time the event occurred;
—Whether the employee was treated at an emergency room;
—Whether the employee was hospitalized overnight as an in-patient;
—The equipment, materials or chemicals the employee was using when the event occurred; and
—The activity the employee was engaged in when the event occurred.

In addition, the proposed regulation would have required the employer to ask several questions (questions 16 through 18) in the same order and using the same language as used on the OSHA forms, in order to obtain more consistent and accurate data about these data items.

A number of commenters approved of the proposed Form 301 (see, *e.g.*, Exs. 21; 15: 32, 153, 246, 324, 369, 374, 380, 396, 427, 441). For example, the International Brotherhood of Teamsters (Ex. 15: 369) stated that the union ''[s]upports the [proposed] modifications of the OSHA Injury and Illness Incident Record (OSHA Form

301) to collect more useful information.'' Other commenters preferred the former OSHA 101 form and urged OSHA to retain it (see, *e.g.*, Exs. 15: 47, 48, 122, 242). For example, the Boiling Springs Fire District (Ex. 15: 47) opposed any changes to the Log or 101 forms, stating ''[W]e like the forms we are presently using and feel that the information in these forms is adequate. I am a great believer in the old saying 'if it is not broke—why fix it'?''

Many of the commenters who specifically addressed the proposed 301 form were concerned about the privacy implications of providing employees, former employees, and employee representatives with access to the OSHA 301 forms. These concerns are addressed in detail in the section of this summary and explanation associated with section 1904.35, Employee involvement. Many other commenters were concerned with the use of equivalent forms (discussed above) and with the requirement to ask certain questions in the same order and using the same language (also discussed above). The remaining comments relating to the proposed forms are grouped into three categories: comments about the proposed case detail questions (proposed questions 9, 10, 16, 17 and18) and the data they would collect; the other fields OSHA proposed to add to the form 101/301; and comments urging the Agency to place additional data fields on the 301 form.

Rewording of the Proposed Case Detail Questions (questions 9, 10, 16, 17, and 18)

OSHA proposed to include five questions on the final OSHA 301 form to gather information about the details of each work-related injury or illness case:

—Proposed question 9 asked for information about the specific injury or illness (*e.g.*, second degree burn or toxic hepatitis);
—Proposed question 10 asked for information on the body part or parts affected (*e.g.*, lower right forearm);
—Proposed question 16 asked for information on all equipment, materials or chemicals the employee was using when the event occurred;
—Proposed question 17 asked for information on the specific activity the employee was engaged in when the event occurred;
—Proposed question 18 asked for information on how the injury or illness occurred, including a description of the sequence of events that led up to the incident and the objects or substances that directly injured or made the employee ill.

OSHA received only one comment about the contents of the proposed questions: George R. Cook, Jr., of the Hearing Conservation Services Company, stated:

> Questions 9, 10, and 16 on the OSHA 301 form should be worded so that the combination of the answers to these three questions could be used as the answer to Question F. on the OSHA 300. Therefore, if a form 301 is filled out in computerized form, that information could then be carried over to the form 300 thus eliminating the need for duplicate entry (Ex. 15: 188).

As discussed above, final Form 301 no longer requires the employer to include these questions on any equivalent form in the same format or language as that used by the OSHA 301 form. However, any employer wishing to take the approach suggested by Mr. Cook is free to do so.

Several commenters objected to proposed question 16 and questioned why information on all of the materials, equipment or chemicals the employee was using when the event occurred was needed (see, *e.g.*, Exs. 15: 35, 205, 318, 334, 375, 424). For example, the Chocolate Manufacturers Association and the National Confectioners Association, in a joint comment (Ex. 15: 318, p. 9) , stated:

> [W]e strongly disagree with the approach reflected in Question 16. We believe the additional information sought by Question 16 (and not by Question 18) is irrelevant and would not, in any event, justify a second set of reporting forms for every recordable incident subject to federal or state OSHA jurisdiction. Requiring a listing of ''all'' equipment, materials or chemicals an employee might have been using—without regard to whether they contributed to the injury or illness—would serve no useful purpose.

OSHA agrees with this assessment and has not included this question from the final 301 form.

The final form solicits information only on the object or substance that directly harmed the employee. The final 301 form contains four questions eliciting case detail information (*i.e.,* what was the employee doing just before the incident occurred?, what happened?, what was the injury or illness?, and what object or substance directly harmed the employee?). The language of these questions on the final 301 form has been modified slightly from that used in the proposed questions to be consistent with the language used on the BLS Survey of Occupational Injuries and Illnesses collection form. The BLS performed extensive testing of the language used in these questions while developing its survey form and has subsequently used these questions to collect data for many years. The BLS has found that the order in which these questions are presented and the wording of the questions on the survey form elicit the most complete answers to the relevant questions. OSHA believes that using the time-tested language and ordering of these four questions will have the same benefits for employers using the OSHA Form 301 as they have had for employers responding to the BLS Annual Survey. Matching the BLS wording and order will also result in benefits for those employers selected to participate in the BLS Annual Survey. To complete the BLS survey forms, employers will only need to copy information from the OSHA Injury and Illness Incident Report to the BLS survey form. This should be easier and less confusing than researching and rewording responses to the questions on two separate forms.

The Data Fields OSHA Proposed to Change on the Proposed 301 Form

Proposed field 5, Date hired. OSHA proposed to add this data field to collect additional data about the work experience of the injured or ill worker. Such data can be very useful for employers, employees, and OSHA because it enables researchers to discover, for example, whether newly hired or inexperienced workers experience relatively more injuries and illnesses than more experienced workers. Several commenters questioned the value of the data OSHA proposed to collect in field 5 (see, *e.g.*, Exs. 15: 151, 152, 179, 180, 201, 347, 409). For example, Caterpillar Inc. (Ex. 15: 201) recommended that ''[i]tem 5 of Form 301 be deleted. The date hired is not a significant factor in analyzing injury causation. If any similar data is necessary, it should be the time on the current job, which is a better indicator of relative job skills or work experience.'' Several commenters asked for clarification of the ''date hired'' phrase (see, *e.g.*, Exs. 15: 151, 152, 179, 180). For example, Atlantic Marine, Inc. (Ex. 15: 180) asked ''What date shall be recorded as the ''Date Hired'' if an employee is laid off, is terminated, or resigns and then is rehired? Should the date of initial hire or the date of rehire be recorded?'

OSHA continues to believe that the data gathered by means of the ''date hired'' field will have value for analyzing occupational injury and illness data and has therefore included this data field on the final OSHA 301 form. These data are useful for analyzing the incidence of occupational injury and illness among newly hired

workers and those with longer tenure. OSHA is aware that the data collected are not a perfect measure of job experience because, for example, an employee may have years of experience doing the same type of work for a previous employer, and that prior experience will not be captured by this data field. Another case where this data field may fail to capture perfect data could occur in the case of an employee who has worked for the same employer for many years but was only recently reassigned to new duties. Despite cases such as these, inclusion of this data field on the Form 301 will allow the Agency to collect valid data on length of time on the job for most employment situations.

For the relatively infrequent situation where employees are hired, terminated, and then rehired, the employer can, at his or her discretion, enter the date the employee was originally hired, or the date of rehire.

Proposed field 6, Name of health care provider; proposed field 7, If treatment off site, facility name and address; and proposed field 8, Hospitalized overnight as in-patient? The former OSHA Form 101 included similar data fields: former field 18 collected the ''name and address of physician,'' while former field 19 collected data on ''if hospitalized, name and address of hospital.'' Several commenters discussed these data fields and questioned their usefulness for analytical purposes (see, *e.g.*, Exs. 15: 95, 151, 152, 179, 180, 347, 409). The Pacific Maritime Association (Ex. 15: 95) noted the difficulty of collecting the data requested by proposed data fields 5, 6, 7, and 13 as they pertain to longshoremen:

> Items 5, 6, 7, and 13 on the OSHA Form 301 presents problems for direct employers of longshoremen. Longshoremen are hired on a daily basis, select their own health care provider; may be treated at a facility of their choice, and may not return to the same employer when returning to work.

Several commenters asked OSHA to clarify the data that OSHA was asking for in these data fields (see, *e.g.*, Exs. 15: 51, 152, 179, 180, 347, 409). For example, the Ford Motor Company (Ex. 15: 347) asked:

> [I]tem 6, ''Name of health care provider'' is unclear in terms of the general instructions. Who is considered the primary health care provider? Is it the individual who sees the employee on the initial medical visit, the individual who renders the majority of care for a case, or the individual who renders care if the employee is referred to an off-site provider on the initial visit? We feel that the last choice is the correct response. We also question the benefit of providing this information. The criteria for OSHA recordability focuses on the care provided, and not on the individual providing the care.
>
> Item 7, ''If treated off-site, facility name and address'' requires more specific instructions as to when this field must be completed. Is this to be completed if the employee is referred to an outside provider on the initial visit, or is this to be completed should the individual be referred out later in the course of the injury or illness? We feel that the former is the correct response. We also question the benefit of providing this information.

OSHA has decided to continue to collect information on final Form 301 concerning the treatment provided to the employee (proposed data field 7). OSHA's experience indicates that employers have not generally had difficulty in providing this information, either in the longshoring or any other industry. The data in this field is particularly useful to an OSHA inspector needing additional information about the medical condition of injured or ill employees. (OSHA does not request this medical information without first obtaining a medical access order under the provisions of 29 CFR part 1913, Rules Concerning OSHA Access to Employee Medical Records.) The final OSHA 301 Form therefore includes a data field for information on the off-site treating facility.

The final 301 Form also includes a data field requesting the name of the health care professional seen by the injured or ill employee. The employer may enter the name either of the physician or other health care professional who provided the initial treatment or the off-site treatment. If OSHA needs additional data on this point, the records of the health care professional listed will include both the name of the referring physician or other health care professional as well as the name of the health care professional to whom the employee was referred for specialized treatment.

Several commenters asked OSHA to collect data on whether a hospitalization involved in-patient treatment or was limited to out-patient treatment (see, *e.g.*, Exs. 15: 151, 152, 179, 180). For example, Alabama Shipyard, Inc. recommended ''Instead of asking in [proposed] item 8 if an employee is hospitalized overnight as in-patient, have a check box to record whether the treatment was as an in-patient or outpatient status'' (Ex. 15: 152). OSHA agrees that the additional information suggested by this commenter would be useful, and final OSHA Form 301 asks two hospitalization-related questions: Was employee treated in an emergency room?, and Was employee hospitalized overnight as an in-patient?

Proposed question 13, date of return to work at full capacity: The proposed Injury and Illness Incident Report (Form 301) contained a data field requiring the date the employee returned to work at full capacity if the case involved restricted work activity or days away from work. This field was included to provide information regarding the length of time the employee was partially or fully incapacitated by the injury or illness. However, because the final rule requires employers to record day counts both for cases involving days away from work and cases involving job transfer or restriction (see discussion above), the date at which an employee returned to work at full capacity field is no longer necessary and does not appear on the final form.

Proposed questions 14, Time of event and 15, Time employee began work: No commenter objected to the inclusion of proposed data field 14, Time of event, and only two commenters objected to proposed data field 15, Time employee began work (see, *e.g.*, Exs. 15: 347, 409). Both of these commenters, the Ford Motor Company and the American Automobile Manufacturers Association, stated that:

> ''Time employee began work,'' is of questionable benefit. Many employees perform a variety of jobs during the day or may have their job changed during the day (work added or subtracted). This question is burdensome and offers little benefit for data analysis.

Several commenters discussed the way the proposed form collected the new information on the time of the accident (see, *e.g.*, Exs. 15: 151, 152, 179, 180, 260, 262, 265, 347, 401, 409). Several of these commenters suggested that OSHA do away with the am/pm designation and use a 24-hour clock instead (see, *e.g.*, Exs. 15: 151, 152, 179, 180). The comments of Atlantic Marine (Ex. 15: 152) are representative:

> Change the form from using A.M. or P.M. to using a 24-hour clock. A 24-hour clock is much easier to use in drawing conclusions on the relationship between injuries/illnesses and the time of day that they occurred. OSHA may find that many employers are currently using a 24-hour clock system.

Another group of commenters suggested that OSHA add am/pm boxes the employer could simply check off as an easier way to collect the data (see, *e.g.*, Exs. 15: 260, 262, 265, 401). For example, the Edison Electric Institute (Ex. 15: 401) suggested that ''Questions 14 and 15 should include a box which can be checked for AM and PM to reduce the possibility that this information will be omitted.''

OSHA has included on the final 301 form the two questions asking for data on the time of the event and the time the employee began work so that employers, employees and the government can obtain information on the role fatigue plays in occupational injuries and illness. Both questions (*i.e.,* on time of event and time employee began work) must be included to conduct this analysis. Thus, OSHA has included both fields on the final Form 301. In addition, the form has been designed so that the employer can simply circle the a.m. or p.m. designation. OSHA believes that this approach will provide the simplest, least burdensome method for capturing these data, and that using a 24 hour clock system would be cumbersome or confusing for most employers.

Data fields for the name and phone number of the person completing the form. Both the former and proposed Incident Report forms included fields designed to obtain information on the person who completed the form. The former OSHA 101 form asked for the date of report, the name of the preparer, and that person's official position. The proposed form would have carried forward the name and title of the preparer and the date, and added the person's phone number. OSHA received very little comment on these proposed data fields. The Ford Motor Company (Ex. 15: 347) and the American Automobile Manufacturers Association (Ex. 15: 409) both made the following comment:

> The ''Completed by'' field could be modified to consolidate name and title. This would be consistent with the manner in which most health care professionals routinely sign their name.
>
> The ''Phone number required'' item should refer to the medical department's number or the general number of the establishment, and be included with the establishment's name and address at the top of the form. This would decrease the paperwork burden by allowing the use of a stamp or a pre-typed format as opposed to completing a phone number on each OSHA Form 301.

The final OSHA Form 301 permits the employer to include the name and title in either field, as long as the information is available. As to the phone number, the employer may use whatever number is appropriate that would allow a government representative accessing the data to contact the individual who prepared the form.

Case File number: The former OSHA 101 form did not include a method for linking the OSHA 300 and 301 forms. Any linking had to be accomplished via the employee's name, department, occupation, and the other information from the forms. OSHA proposed to add a field to the OSHA 301 form that would use the same case number as that on the OSHA 300 form, thus making it easier for employers, employees and government representatives to match the data from the two forms. Two commenters objected to the addition of such a case file number (Exs. 15: 217, 334). The American Forest & Paper Association (AF&PA) argued:

> Another issue of concern to AF&PA is the requirement for a unique case or file number on the Form 300 and Form 301 to facilitate cross-referencing between the forms. We believe there is sufficient data (employee name, date of birth, date of injury) on all existing state First Report of Injury forms to readily cross-reference the First Report to the entry on the Form 300. A uniform requirement for employers to create an indexing system would serve no useful purpose. Furthermore, it would be unduly burdensome for many affected companies except in those cases when there is a reason to maintain the confidentiality of the affected employee's name (Ex. 15: 334).

OSHA continues to believe that easy linkage of the Forms 300 and 301 will be beneficial to all users of these data. Thus, the final Form 301 contains a space for the case file number. The file/case number is required on both forms to allow persons reviewing the forms to match an individual OSHA Form 301 with a specific entry on the OSHA Form 300. Access by authorized employee representatives to the information contained on the OSHA Form 301 is limited to the information on the right side of the form (see § 1904.35(b)(2)(v)(B) of the final rule). The case/file number is the data element that makes a link to the OSHA Form 300 possible. OSHA believes that this requirement will add very little burden to the recordkeeping process, because the OSHA Log has always required a unique file or case number. The final Form 301 requirement simply requires the employer to place the same number on the OSHA 301 form.

Suggested Fields

Commenters submitted suggestions for other data fields that they believed should be included on the OSHA Form 301, as follows.

Commenter(s)	Suggested addition to the 301 incident report, and OSHA response
American Industrial Hygiene Association (AIHA) (Ex. 15: 153).	''AIHA suggests a corrective action box on the OSHA 301. This form is often used as an employer's accident report, and this would encourage employers to seek action as appropriate to prevent reoccurrence.''
	OSHA has not included this suggested change because the 301 form is not designed to be an accident investigation form, but is used to gather information on occupational injuries and illnesses. Corrective actions would thus not be an appropriate data field for this form.
(Exs. 15: 179, 180, 151, 152).	''A space is needed for recording an employee identification number. This number is important for maintaining records. Some employers use the employee's social security number, while others have a unique, employer generated identifier for each employee.''
.....	OSHA believes the combination of other data fields (case number, employee name, address and date of birth) provides the user the ability to identify individuals when necessary.
Ogletree, Deakins, Nash, Smoak & Stewart (Ex. 15: 406).	Substituting ''regular job title'' would provide for effective use of Form 301 in conducting safety and health analysis of the workplace.
	The OSHA 300 Log asks for the employee's job title. OSHA does not believe there is a need to ask for the data on both forms.

Commenter(s)	Suggested addition to the 301 incident report, and OSHA response
American Petroleum Institute (Ex. 15: 375).	"[t]he supplemental data should contain all information necessary to make recordkeeping decisions, and to facilitate certification of the logs at year end. For this reason, the following should be added to what OSHA proposes for the supplemental data: company name, establishment name, employee social security number, regular job title, "new injury or illness?", "loss of consciousness?", days away from work, first date absent, est. duration of absence, "date days-away cases returned to work?," "result in restricted activity?", "job transfer?", "termination of employment?" OSHA has not included these data fields on the final form because the Agency believes that doing so would duplicate the information on the OSHA 300 form. There is also no need to use the OSHA 301 form to document all the employer's recordkeeping decisions.
Ford Motor Company and the American Automobile Manufacturers Association (Exs. 15: 347, 409).	"AAMA proposes the OSHA Form 301 include the establishment name and address at the top of the form. This will assist not only the employer, but OSHA as well, to avoid any confusion over records in which one medical department may serve several establishments. Also, it will be helpful in those cases where a company employee, who works predominately at one particular facility, sustains an injury or illness at another company establishment." The establishment name and location are included on the OSHA Form 300. In an effort to identify and eliminate duplication of data, OSHA has not included this data item on the OSHA Form 301.
Building and Construction Trades Department, AFL–CIO (Ex.15: 394).	For every potentially recordable injury or illness, the employer shall record: case number, date case reported and name of employee. —Job title of employee. —Date of injury or illness. —Time of event or exposure. —Time employee began work. —Specific description of injury or illness. —Location where the accident or exposure occurred (*e.g.* loading dock). —Facility or Project (*e.g.* Hackensack factory, or Dreamwood Subdevelopment). —Body part affected. —Equipment, tools, materials, or chemicals being used. —Specific activity when injured or upon onset of illness. —How injury or illness occurred. OSHA notes that the final OSHA 301 form contains many of these data elements. The Agency believes that the remaining fields are unnecessary or duplicative of information already found on the OSHA 300 Log.

Summary

The final forms employers will use to keep the records of those occupational injuries and illnesses required by the final rule to be recorded have been revised to reflect the changes made to the final rule, the record evidence gathered in the course of this rulemaking, and a number of changes designed to simplify recordkeeping for employers. In addition, the forms have been revised to facilitate the use of equivalent forms and employers' ability to computerize their records.

Subpart D. Other OSHA injury and illness recordkeeping requirements

Subpart D of the final rule contains all of the 29 CFR Part 1904 requirements for keeping OSHA injury and illness records that do not actually pertain to entering the injury and illness data on the forms. The nine sections of Subpart D are:

—Section 1904.30, which contains the requirements for dealing with multiple business establishments;

—Section 1904.31, which contains the requirements for determining which employees' occupational injuries and illnesses must be recorded by the employer;

—Section 1904.32, which requires the employer to prepare and post the annual summary;

—Section 1904.33, which requires the employer to retain and update the injury and illness records;

—Section 1904.34, which requires the employer to transfer the records if the business changes owners;

—Section 1904.35, which includes requirements for employee involvement, including employees' rights to access the OSHA injury and illness information;

—Section 1904.36, which prohibits an employer from discriminating against employees for exercising their rights under the Act;

—Section 1904.37, which sets out the state recordkeeping regulations in OSHA approved State-Plan states; and

—Section 1904.38, which explains how an employer may seek a variance from the recordkeeping rule.

Section 1904.30 Multiple Establishments

Section 1904.30 covers the procedures for recording injuries and illnesses occurring in separate establishments operated by the same business. For many businesses, these provisions are irrelevant because the business has only one establishment. However, many businesses have two or more establishments, and thus need to know how to apply the recordkeeping rule to multiple establishments. In particular, this section applies to businesses where separate work sites create confusion as to where injury and illness records should be kept and when separate records must be kept for separate work locations, or establishments. OSHA recognizes that the recordkeeping system must accommodate operations of this type, and has adopted language in the final rule to provide some flexibility for employers in the construction, transportation, communications, electric and gas utility, and sanitary services industries, as well as other employers with geographically dispersed operations. The final rule provides, in part, that operations are not considered separate establishments unless they continue to be in operation for a year or more. This length-of-site-operation provision increases the chances of discovering patterns of occupational injury and illness, eliminates the burden of creating OSHA 300 Logs for transient work sites, and ensures that useful records are generated for more permanent facilities.

OSHA's proposed rule defined an establishment as a single physical location that is in operation for 60 calendar days or longer (61 FR 4059), but did not provide specific provisions covering multiple establishments. In the final rule, the definition of

establishment is included in Subpart G, Definitions.

The basic requirement of § 1904.30(a) of this final rule states that employers are required to keep separate OSHA 300 Logs for each establishment that is expected to be in business for one year or longer. Paragraph 1904.30(b)(1) states that for short-term establishments, i.e., those that will exist for less than a year, employers are required to keep injury and illness records, but are not required to keep separate OSHA 300 Logs. They may keep one OSHA 300 Log covering all short-term establishments, or may include the short-term establishment records in logs that cover individual company divisions or geographic regions. For example, a construction company with multi-state operations might have separate OSHA 300 Logs for each state to show the injuries and illnesses of its employees engaged in short-term projects, as well as a separate OSHA 300 Log for each construction project expected to last for more than one year. If the same company had only one office location and none of its projects lasted for more than one year, the company would only be required to have one OSHA 300 Log.

Paragraph 1904.30(b)(2) allows the employer to keep records for separate establishments at the business' headquarters or another central location, provided that information can be transmitted from the establishment to headquarters or the central location within 7 days of the occurrence of the injury or illness, and provided that the employer is able to produce and send the OSHA records to each establishment when § 1904.35 or § 1904.40 requires such transmission. The sections of the final rule are consistent with the corresponding provisions of the proposed rule.

Paragraph 1904.30(b)(3) states that each employee must be linked, for recordkeeping purposes, with one of the employer's establishments. Any injuries or illnesses sustained by the employee must be recorded on his or her home establishment's OSHA 300 Log, or on a general OSHA 300 Log for short-term establishments. This provision ensures that all employees are included in a company's records. If the establishment is in an industry classification partially exempted under § 1904.2 of the final rule, records are not required. Under paragraph 1904.30(b)(4), if an employee is injured or made ill while visiting or working at another of the employer's establishments, then the injury or illness must be recorded on the 300 Log of the establishment at which the injury or illness occurred.

How Long Must an Establishment Exist to Have a Separate OSHA Log

As previously stated, the final rule provides that an establishment must be one that is expected to exist for a year or longer before a separate OSHA log is required. Employers are permitted to keep separate OSHA logs for shorter term establishments if they wish to do so, but the rule does not require them to do so. This is a change from the proposed rule, which would have required an establishment to be in operation for 60 days to be considered an ''establishment'' for recordkeeping purposes. The proposed 60-day threshold would have changed the definition of ''establishment'' used in OSHA's former recordkeeping rule, because that rule included a one-year-in-operation threshold for defining a fixed establishment required to keep a separate OSHA Log (Ex. 2, p. 21). The effect of the proposed change in the threshold would have been to increase the number of short-duration operations required to maintain separate injury and illnesses records.

The majority of the comments OSHA received on this issue opposed the decrease in the duration of the threshold from one year to 60 calendar days, primarily because commenters felt that requiring temporary facilities to maintain records would be burdensome, costly and would not increase the utility of the records (see, *e.g.*, Exs. 21, 15: 21, 43, 78, 116, 122, 123, 145, 170, 199, 213, 225, 254, 272, 288, 303, 304, 305, 308, 338, 346, 349, 350, 356, 358, 359, 363, 364, 375, 389, 392, 404, 412, 413, 423, 424, 433, 437, 443, 475). For example, the Associated Builders and Contractors, Inc. (ABC):

> [d]isagrees that sites in existence for as little as 60 days need separate injury and illness records. The redefinition of ''establishment'' will cause enormous problems for subcontractors in a variety of construction industries. Even employers with small workforces could be on the site of several projects at any one time, and in the course of the year could have sent crews to hundreds of sites. Though they may be on such sites for only brief periods of time, they will be required under this proposal to create separate logs for each site, increasing greatly their paperwork requirements without increasing the amount of information available to their employees (Ex. 15: 412).

In addition, many of these commenters argued that a 60-day threshold would be especially burdensome because it would capture small work sites where posting of the annual summary or mailing the summary to employees would make little sense because so few cases would be captured on each Log. The majority of these commenters suggested that OSHA retain the former one-year duration threshold in the definition of establishment (see, *e.g.*, Exs. 15: 78, 123, 225, 254, 305, 356, 389, 404).

Other commenters expressed concern that the proposed 60-day threshold would create an unreasonable burden on employers in service industries like telecommunications and other utilities, whose employees typically report to a fixed location, such as a service center or garage, but perform tasks at transient locations that remain in existence for more than 60 days. These commenters felt that classifying such locations as ''establishments'' and creating thousands of new OSHA Logs, would have ''no benefit to anyone'' (Ex. 15: 199) (*see also* Exs. 15: 65, 170, 213, 218, 332, 336, 409, 424).

In contrast, commenters who supported the 60-day threshold worried that injuries and illnesses occurring at transient locations would never be accounted for without such a provision (see, *e.g.*, Exs. 15: 9, 133, 310, 369, 425). Some urged OSHA to adopt an even shorter time-in-operation threshold (see, *e.g.*, Exs. 15: 369, 418, 429). For example, the International Brotherhood of Teamsters (IBT) stated that they ''[w]ould strongly support reducing the requirement to thirty days to cover many low level housing construction sites, and transient operations, similar to mobile amusement parks'' (Ex. 15: 369). The AFL–CIO agreed: ''* * * the 60-day time period is still too long. We believe that to truly capture a majority of these transient work sites, a 30-day time period would be more realistic. A 30-day time period as the trigger would capture construction activities such as trenching, roofing, and painting projects which will continue to be missed if a 60-day time period is used'' (Ex. 15: 418). OSHA agrees that under the proposed provisions there was a potential for injuries and illnesses to be missed at short term establishments and for employees who did not report to fixed establishments. Therefore, §§ 1904.30(b)(1) and (b)(3) have been added to make it clear that records (but not a *separate* log) must be kept for short-term establishments lasting less than one year, and that each employee must be linked to an establishment.

The United Parcel Service (UPS) recommended that OSHA craft its rule to coincide with a company's personnel records system, stating ''[t]he unit for which an employer maintains personnel records is presumptively appropriate and efficient; accordingly, OSHA should not mandate a rule that conflicts with a company's current personnel units policy'' (Ex. 15: 424). OSHA recognizes

that employers would prefer OSHA to allow companies to keep records in any way they choose. However, OSHA believes that allowing each company to decide how and in what format to keep injury and illness records would erode the value of the injury and illness records in describing the safety and health experience of individual workplaces and across different workplaces and industries. OSHA has therefore decided not to adopt this approach in the final rule, but to continue its longstanding requirement requiring records to be kept by establishment.

OSHA has reviewed all of the comments on this issue and has responded by deleting any reference to a time-in-operation threshold in the definition of establishment but specifying a one-year threshold in section 1904.30(a) of the final rule. OSHA finds, based on the record evidence, that the one-year threshold will create useful records for stable establishments without imposing an unnecessary burden on the many establishments that remain in existence for only a few months.

Centralized Recordkeeping

As previously stated, the proposed rule did not include a specific section covering multiple establishments. The proposal did require that records for employees not reporting to any single establishment on a regular basis should be kept at each transient work site, or at an established central location, provided that records could be obtained within 4 hours if requested as proposed.

Most commenters supported provisions that would allow the employer to keep records at a centralized location (see, *e.g.*, Exs. 20, 21, 15: 9, 38, 48, 136, 137, 141, 154, 173, 203, 213, 224, 234, 235, 254, 260, 262, 265, 266, 272, 277, 278, 288, 303, 321, 336, 350, 367, 373, 375, 401, 409). Many, however, disagreed with the requirement that records be produced within 4 hours if requested by an authorized government official. Those comments are discussed in the preamble for § 1904.40, Providing records to government representatives. The only other concern commenters expressed about centralized recordkeeping was that centralized records, like computerized records, would make it more difficult for employees to access the records (see, *e.g.*, Exs. 15:379, 380, 418, 438).

OSHA does not believe that centralization of the records will compromise timely employee or government representative access to the records. To ensure that this is the case, centralization under § 1904.30(b)(2) is allowed only if the employer can produce copies of the forms when access to them is needed by a government representative, an employee or former employee, or an employee representative, as required by §§ 1904.35 and 40.

Recording Injuries and Illnesses Where They Occur

Proposed section 1904.7, Location of records, and section 1904.11, Access to records, covered recordkeeping requirements for employees who report to one establishment but are injured or made ill at other locations of the same company. Specifically, these sections required that records for employees reporting to a particular establishment but becoming ill or injured at another establishment within the same company be kept at the establishment in which they became injured or ill. This was derived from OSHA's longstanding interpretation that employees' cases should be recorded where they occur, if it is at a company establishment (April 24, 1992 letter of interpretation to Valorie A. Ferrara of Public Service Electric and Gas Company). Several commenters objected to the proposed requirement that an employee's injury or illness be recorded on the log of the establishment where the injury occurred, rather than on the log of the establishment they normally report to (see, *e.g.*, Exs.15: 60, 107, 146, 184, 199, 200, 232, 242, 263, 269, 270, 329, 335, 343, 356, 375, 377). The comments of the B.F. Goodrich Company (Ex. 15: 146) are representative:

> [t]he requirement for a company to log a visiting employee's injury or illness on the log of the company establishment that they are visiting rather than on the log of their normal work establishment, is not consistent with the data collection process. As proposed, the rule requires the facility to record the injury or illness and not the hours worked by the visiting employee. These individuals would not normally be counted in the number of employees at the visited site nor in the manhours worked at that site. Recording of cases from visiting employees would improperly skew the incidence rates of both facilities. This approach is particularly inappropriate in the case of an illness, since the case may be a result of accumulated exposures which have nothing to do with the site visited during the onset of the illness. Alternately, an injury or illness could manifest after the visitor leaves the facility.

OSHA disagrees with these commenters about where the injuries and illnesses should be recorded. For the vast majority of cases, the place where the injury or illness occurred is the most useful recording location. The events or exposures that caused the case are most likely to be present at that location, so the data are most useful for analysis of that location's records. If the case is recorded at the employee's home base, the injury or illness data have been disconnected from the place where the case occurred, and where analysis of the data may help reveal a workplace hazard. Therefore, OSHA finds that it is most useful to record the injury or illness at the location where the case occurred. Of course, if the injury or illness occurs at another employer's workplace, or while the employee is in transit, the case would be recorded on the OSHA 300 Log of the employee's home establishment.

For cases of illness, two types of cases must be considered. The first is the case of an illness condition caused by an acute, or short term workplace exposure, such as skin rashes, respiratory ailments, and heat disorders. These illnesses generally manifest themselves quickly and can be linked to the workplace where they occur, which is no different than most injury cases. For illnesses that are caused by long-term exposures or which have long latency periods, the illness will most likely be detected during a visit to a physician or other health care professional, and the employee is most likely to report it to his or her supervisor at the home work location.

Recording these injuries and illnesses could potentially present a problem with incidence rate calculations. In many situations, visiting employees are a minority of the workforce, their hours worked are relatively inconsequential, and rates are thus unaffected to any meaningful extent. However, if an employer relies on visiting labor to perform a larger amount of the work, rates could be affected. In these situations, the hours of these personnel should be added to the establishment's hours of work for rate calculation purposes.

Section 1904.31 Covered employees

Final Rule Requirements and Legal Background

Section 1904.31 requires employers to record the injuries and illnesses of all their employees, whether classified as labor, executive, hourly, salaried, part-time, seasonal, or migrant workers. The section also requires the employer to record the injuries and illnesses of employees they supervise on a day-to-day basis, even if these workers are not carried on the employer's payroll.

Implementing these requirements requires an understanding of the Act's definitions of ''employer'' and

''employee.'' The statute defines ''employer,'' in relevant part, to mean ''a person engaged in a business affecting interstate commerce who has employees.'' 29 U.S.C. 652 (5). The term ''person'' includes ''one or more individuals, partnerships, associations, corporations, business trusts, legal representatives, or any organized group of persons.'' 29 U.S.C. 652 (4). The term ''employee'' means ''an employee of an employer who is employed in a business of his employer which affects interstate commerce.'' 29 U.S.C. 652(6). Thus, any individual or entity having an employment relationship with even one worker is an employer for purposes of this final rule, and must fulfill the recording requirements for each employee.

The application of the coverage principles in this section presents few issues for employees who are carried on the employer's payroll, because the employment relationship is usually well established in these cases. However, issues sometimes arise when an individual or entity enters into a temporary relationship with a worker. The first question is whether the worker is an employee of the hiring party. If an employment relationship exists, even if temporary in duration, the employee's injuries and illnesses must be recorded on the OSHA 300 Log and 301 form. The second question, arising in connection with employees provided by a temporary help service or leasing agency, is which employer—the host firm or the temporary help service—is responsible for recordkeeping.

Whether an employment relationship exists under the Act is determined in accordance with established common law principles of agency. At common law, a self-employed ''independent contractor'' is not an employee; therefore, injuries and illnesses sustained by independent contractors are not recordable under the final Recordkeeping rule. To determine whether a hired party is an employee or an independent contractor under the common law test, the hiring party must consider a number of factors, including the degree of control the hiring party asserts over the manner in which the work is done, and the degree of skill and independent judgment the hired party is expected to apply. *Loomis Cabinet Co.* v. *OSHRC,* 20 F.3d 938, 942 (9th Cir. 1994).

Other individuals, besides independent contractors, who are not considered to be employees under the OSH Act are unpaid volunteers, sole proprietors, partners, family members of farm employers, and domestic workers in a residential setting. See 29 CFR § 1975.4(b)(2) and § 1975.6 for a discussion of the latter two categories of workers. As is the case with independent contractors, no employment relationship exists between these individuals and the hiring party, and consequently, no recording obligation arises.

A related coverage question sometimes arises when an employer obtains labor from a temporary help service, employee leasing firm or other personnel supply service. Frequently the temporary workers are on the payroll of the temporary help service or leasing firm, but are under the day-to-day supervision of the host party. In these cases, Section 1904.31 places the recordkeeping obligation upon the host, or utilizing, employer. The final rule's allocation of recordkeeping responsibility to the host employer in these circumstances is consistent with the Act for several reasons.

First, the host employer's exercise of day-to-day supervision of the temporary workers and its control over the work environment demonstrates a high degree of control over the temporary workers consistent with the presence of an employment relationship at common law. See *Loomis Cabinet Co.,* 20 F.3d at 942. Thus, the temporary workers will ordinarily be the employees of the party exercising day-to-day control over them, and the supervising party will be their employer.

Even if daily supervision is not sufficient alone to establish that the host party is the employer of the temporary workers, there are other reasons for the final rule's allocation of recordkeeping responsibility. Under the OSH Act, an employer's duties and responsibilities are not limited only to his own employees. Cf. *Universal Constr. Co.* v. *OSHRC,* 182 F.3d 726, 728–731 (10th Cir. 1999). Assuming that the host is *an* employer under the Act (because it has an employment relationship with someone) it reasonably should record the injuries of all employees, whether or not its own, that it supervises on a daily basis. This follows because the supervising employer is in the best position to obtain the necessary injury and illness information due to its control over the worksite and its familiarity with the work tasks and the work environment. As discussed further below, the final rule is sensible and will likely result in more accurate and timely recordkeeping.

The Proposed Rule

The final rule's coverage rules are consistent with the basic principles embodied in the former rule and in the proposal. The proposed rule would have continued to require employers to record the injuries and illnesses of employees over whose work they exert ''day-to-day supervision'' (61 FR 4058/3). OSHA proposed to codify this longstanding interpretation by adding a definition of ''employee'' together with a note explaining its application to Part 1904 recordkeeping. The proposed definition restated the definition of employee in the OSH Act. It then explained that, for recordkeeping purposes, an employer should consider as its employees any persons who are supervised on a day-to-day basis at the establishment. The proposal noted that this was the test regardless of whether the persons were labeled as ''independent contractors,'' ''migrant workers,'' or workers provided by a temporary help service.

The proposal further explained that day-to-day supervision occurs ''when, in addition to specifying the output, product or result to be accomplished by the person's work, the employer supervises the details, means, methods and processes by which the work is to be accomplished'' (61 FR 4059/1). OSHA also noted that other classes of workers would not be covered because they were not considered employees, either as defined in the OSH Act or as set forth in regulatory interpretations. These included sole proprietors, partners, family members of farm employers, and domestic workers in a residential setting.

Response To the Proposal

A number of commenters agreed with OSHA's approach to differentiate between employees and true independent contractors, and to require employers to keep records for employees they supervise on a day-to-day basis (see, *e.g.*, Exs. 15: 61, 65, 205, 305, 322, 333, 346, 348, 351, 369, 390, 429). The National Association of Manufacturers (NAM) stated:

> [f]or purposes of recordkeeping, OSHA has consistently taken the position that the term ''employee'' includes all personnel who are supervised on a day-to-day basis by the employer using their services (not only with respect to the result to be achieved, but also the means, methods and processes by which the work is to be accomplished). While this is a fact-intensive determination that must be made on a case-by-case basis, we commend the Agency for attempting to clarify the matter by making that approach an explicit part of the rule, presumably for purposes of both recordkeeping and records access (Ex. 15: 305).

The National Association of Temporary Staffing Services (NATSS)) supported:

[c]ontinuation of ''utilizing employer'' rule for maintaining records for temporary employees. Temporary help and staffing service firms recruit individuals with a broad range of training, education and skills, and then assign them to work at customer locations on a variety of assignments and projects. The fundamental nature of the service relationship is such that while staffing service firms are the general employers of their workers and assume a broad range of employer responsibilities, those responsibilities generally do not include direct supervision of the employees at the worksite. Hence, staffing firms have a limited ability to affect conditions at the worksite.

In recognition of the above, OSHA's long-standing policy has been to require the worksite employer, not the staffing firm, to maintain illness and injury records of temporary workers supervised by the worksite employer. The proposed rules continue this policy. In a special ''note'' in section 1904.3, ''employee'' for record keeping purposes is defined to include temporary workers ''when they are supervised on a day-to-day basis by the employer utilizing their services.'' Under this definition, the worksite employer, not the staffing firm, would be required to maintain records for temporary employees supplied by a staffing firm, provided they are supervised by the worksite employer. As stated in the background section of the proposed rule, ''this is consistent with case law and the interpretation currently used by OSHA'' (61 F.R. 4034). NATSS strongly supports this proposed definition. (Ex. 15: 333)

A number of commenters opposed OSHA's proposed approach on this issue (see, *e.g.*, Exs. 15: 9, 23, 26, 64, 67, 82, 92, 119, 154, 159, 161, 184, 185, 198, 203, 204, 225, 259, 287, 297, 299, 312, 335, 336, 338, 341, 356, 363, 364, 370, 404, 423, 424, 427, 431, 437, 443). Several of these commenters thought that including temporary employees from temporary services, independent contractors and other leased personnel within the definition of employee would impose new burdens on employers (see, *e.g.*, Exs. 15: 35, 67, 356, 423, 437). However, the proposal did not alter the long-standing meanings of the terms employee, employer or employment relationship. The day-to-day supervision test for identifying the employer who is responsible for compliance with Part 1904 is a continuation of OSHA's former policy, and is consistent with the common law test. The comments indicate that many employers are not aware that they need to keep records for leased workers, temporary workers, and workers who are inaccurately labeled ''independent contractors'' but are in fact employees. However, these workers are employees under both the former rule and the final rule. Incorporating these requirements into the regulatory text can only help to improve the consistency of the data by clarifying the employer's responsibilities.

Several commenters erroneously believed that they might need to keep records for all employees of independent contractors performing work in their establishment (see, *e.g.*, Exs. 15: 161, 203, 312). The Battery Council International remarked:

[i]t is unclear how this clarification would apply to employers in the battery industry who hire independent contractors to perform construction and other activities on their manufacturing facilities. Often times, battery manufacturers will provide the contractors with an orientation to the facility (which includes the facility's safety and health rules and location of MSDSs) [material safety data sheets], and monitor the work of the contractor to ensure that work contracted for has been completed, but do not otherwise supervise the details, means, methods and processes by which the work is to be accomplished. In these relationships, the contractors certify to the battery manufacturers that they comply with all OSHA requirements including training, which must be completed as part of the work contract.

If the intent of the proposed clarification is to not require the reporting of injuries and illnesses to independent contractors under similar conditions as described above, then BCI supports this concept and requests further clarification on this issue. BCI will oppose, however, any attempt by OSHA to require the reporting of injuries or illnesses that occur to ''independent contractors'' where the employer has not otherwise supervised the details, means, methods and processes by which the work was accomplished (Ex. 15: 161).

The International Dairy Foods Association (IDFA) was concerned that if a dairy processing facility hired an electrical contractor to install new lighting and the electrical contractor's employee were injured while installing the lighting, the dairy might have to record the incident in its Part 1904 records (Ex. 15: 203).

The 1904 rule does not require an employer to record injuries and illnesses that occur to workers supervised by independent contractors. However, the label assigned to a worker is immaterial if it does not reflect the economic realities of the relationship. For example, an employment contract that labels a hired worker as an independent contractor will have no legal significance for Part 1904 purposes if in fact the hiring employer exercises day-to-day supervision over that worker, including directing the worker as to the manner in which the details of the work are to be performed. If the contractor actually provides day-to-day supervision for the employee, then the contractor is responsible for compliance with Part 1904 as to that employee. In the IDFA example, unless the dairy exercised supervisory control over the time and manner of the electrician's work, the dairy would not be considered the electrician's employer and would not be required to record the incident.

Some commenters argued that the injury and illness statistics would be more accurate or useful if the payroll employer recorded the injuries and illnesses, regardless of which employer controlled the work or the hazard (see, *e.g.*, Exs. 15: 9, 26, 92, 161, 198, 259, 287, 297, 299, 333, 341, 356, 364, 443). The Sandoz Corporation stated that ''[t]he control and responsibility for reporting these injuries should be with the employer, i.e. the establishment that pays the employee. This simplifies the control and reporting. It also allows a company that utilizes temporary or contract services to look at the OSHA record of the supplier as part of the purchasing decision and thus put pressure on the supplier for better safety performance, thus using market forces to improve safety'' (Ex. 15: 299). The Battery Council International added ''[r]equiring employers to record the injuries and illnesses of independent contractors under such circumstances is unfair and will result in the over recording of injuries and illnesses by the battery industry. This will result in more OSHA inspections on the lead battery industry, which will in turn impose additional costs and burdens on BCI members'' (Ex. 15: 161). The Fertilizer Institute stated ''[a]dopting compensation as the basis for determining the employer/employee relationship results in simplification that is not afforded when one must look at day-to-day supervision'' (Ex. 15: 154).

A few commenters recommended that the employer responsible for workers' compensation insurance also be required to record the injuries and illnesses (Ex. 15: 204, 225, 336, 364). The American Gas Association (Ex. 15: 225) stated that OSHA should:

[s]trive to parallel Workers' Compensation law. The employer may have supervision of some types of temporary workers, *e.g.*, daily office workers. However, the employer may have no control over a crew of construction contractors. In this case, the employer does not supervise the details, means, methods and processes by which the work accomplished. The definition of employee, along with the note to the definition proposed by OSHA requires a subjective determination to be made. 61 Fed. Reg. at 4058. We recommend OSHA follow a more objective test. The responsibility of reporting injuries and illnesses should turn on the fact of who provides the Workers' Compensation insurance, not necessarily daily supervision. This would then be an objective, rather than

subjective test, less likely open to interpretation and mistakes.

OSHA has rejected the suggestions that either the payroll or workers' compensation employer keep the OSHA 1904 records. The Agency believes that in the majority of circumstances the payroll employer will also be the workers' compensation employer and there is no difference in the two suggestions. Temporary help services typically provide the workers' compensation insurance coverage for the employees they provide to other employers. Therefore, our reasons for rejecting these suggestions are the same. OSHA agrees that there are good arguments for both scenarios: 1. Including injuries and illnesses in the records of the leasing employer (the payroll or workers' compensation employer and 2. For including these cases in the records of the controlling employer. Requiring the payroll or workers' compensation employer to keep the OSHA records would certainly be a simple and objective method. There would be no doubt about who keeps the records. However, including the cases in the records of the temporary help agency erodes the value of the injury and illness records for statistical purposes, for administering safety and health programs at individual worksites, and for government inspectors conducting safety and health inspections or consultations. The benefits of simplification and clarity do not outweigh the potential damage to the informational value of the records, for the reasons discussed below.

First, the employer who controls the workers and the work environment is in the best position to learn about all the injuries and illnesses that occur to those workers. Second, when the data are collected for enforcement and research use and for priority setting, the injury and illness data are clearly linked to the industrial setting that gave rise to them. Most important, transferring the recording/reporting function from the supervising employer to the leasing firm would undermine rather than facilitate one of the most important goals of Part 1904—to assure that work-related injury and illness information gets to the employer who can use it to abate work-related hazards. If OSHA were to shift the recordkeeping responsibility from the controlling employer to the leasing firm, the records would not be readily available to the employer who can make best use of them. OSHA would need to require the leasing firm to provide the controlling employer with copies of the injury and illness logs and other reports to meet this purpose. This would be both burdensome and duplicative.

Requiring the controlling (host) employer to record injuries and illnesses for employees that they control has several advantages. First, it assigns the injuries and illnesses to the individual workplace with the greatest amount of control over the working conditions that led to the worker's injury or illness. Although both the host employer and the payroll employer have safety and health responsibilities, the host employer generally has more control over the safety and health conditions where the employee is working. To the extent that the records connect the occupational injuries and illnesses to the working conditions in a given workplace, the host employer must include these cases to provide a full and accurate safety and health record for that workplace.

If this policy were not in place, industry-wide statistics would be skewed. Two workplaces with identical numbers of injuries and illnesses would report different statistics if one relied on temporary help services to provide workers, while the other did not. Under OSHA's policy, when records are collected to generate national injury and illness statistics, the cases are properly assigned to the industry where they occurred. Assigning these injuries and illnesses to temporary help services would not accurately reflect the type of workplace that produced the injuries and illnesses. It would also be more difficult to compare industries. To illustrate this point, consider a hypothetical industry that relies on temporary help services to provide 10% of its labor force. Assuming that the temporary workers experience workplace injury and illness at the same rate as traditional employees, the Nation's statistics would underrepresent that industry's injury and illness numbers by 10%. If another industry only used temporary help services for 1% of the labor force, its statistics would be closer to the real number, but comparisons to the 10% industry would be highly suspect.

The policy also makes it easier to use an industry's data to measure differences that occur in that industry over time. Over the last 20 years, the business community has relied increasingly on workers from temporary help services, employee leasing companies, and other temporary employees. If an industry sector as a whole changed its practices to include either more or fewer temporary workers over time, comparisons of the statistics over several years might show trends in injury and illness experience that simply reflected changing business practices rather than real changes in safety and health conditions.

Some commenters objected to this aspect of the proposal because they thought it would require both the personnel leasing firm and the host employer to record injuries and illnesses. Double recording would lead to inaccurate statistics when both employers reported their data to BLS (see, *e.g.*, Exs. 15: 9, 26, 92, 198, 259, 287, 297, 333, 341, 356, 364, 443). The National Association of Temporary Staffing Services Stated:

> [i]f the exemption is not retained in the case of SIC 7363 [Help Supply Services] employers, it would be especially important for the final rules to expressly provide * * * that there is no intent to impose a dual reporting requirement. At least one state OSH office already has construed the proposed lifting of the partial exemption as creating an obligation on the part of staffing firms to maintain records for all of its employees, including temporary employees supervised by the worksite employer. This is clearly inconsistent with the intent of the proposed rule and should be clarified (Ex. 15: 333).

The Society of the Plastics Industry added:

> [b]ecause statistics are required to be collected for several years, it would take a significant effort to contact several independent companies on a continual basis to obtain such information. This would only result in a serious duplication of records, as both the host employer and the temporary leasing employer record the case. This will increase the recordkeeping burden for both the employer and those independent companies hired for a specific job by that employer (Ex. 15: 364).

OSHA agrees with these commenters that there is a potential for double counting of injuries and illnesses for workers provided by a personnel supply service. We do not intend to require both employers to record each injury or illness. To solve this problem, the rule, at § 1904.31(b)(4), specifically states that both employers are not required to record the case, and that the employers may coordinate their efforts so that each case is recorded only once—by the employer who provides day-to-day supervision. When the employers involved choose to work with each other, or when both employers understand the Part 1904 regulations as to who is required to record the cases and who is not, there will not be duplicative recording and reporting. This policy will not completely eliminate double recording of these injuries and illnesses, but it provides a mechanism for minimizing the error in the BLS statistics.

OSHA believes that many employers already share information about these

injuries and illnesses to help each other with their own respective safety and health responsibilities. For example, personnel service employers need information to process workers' compensation claims and to determine how well their safety and health efforts are working, especially those involving training and the use of personal protective equipment. The host employer needs information on conditions in the workplace that may have caused the injuries or illnesses.

Many commenters objected to the requirement that the employer who controls the work environment record injuries and illnesses of temporary workers because that employer does not have adequate information to record the cases accurately (see, *e.g.*, Exs. 15: 9, 23, 184, 341, 363, 364, 370). These commenters contended that temporary workers supplied by personnel agencies may not have been at any given assignment long enough for the controlling employer to count days away from work accurately or to make informed judgments about the recordability of ongoing or recurring cases. The comments also contended that the controlling employer may have difficulty judging whether an injury or illness is related to that employer's work environment, to other places of employment, or is totally non-work related. These drawbacks in turn affect the recording employer's ability to certify to the completeness and accuracy of the annual summary of the Log. U.S. West, Inc. (Ex. 15: 184) remarked:

> [e]mployers should not be responsible for recordkeeping involving independent contractors, workers from temporary agencies, etc. A major reason for this would be the difficulties presented when trying to track such individuals for injuries/illnesses that have long periods of days away from work. In addition, it is often difficult to assign work relatedness for cases to a specific employer—an example would be upper extremity repetitive motion disorders for an individual from a temporary agency that works for several different employers in the course of a week or month. To avoid such problems, recordkeeping should be the responsibility of the individual's actual employer.

OSHA agrees with these commenters that recording work-related injuries and illnesses for temporary, leased employees will sometimes present these difficulties. However, the solution is not, as some commenters urge, to require the personnel leasing agency to assume responsibility for Part 1904 recording and reporting. The personnel leasing firm will not necessarily have better information than the host employer about the worker's exposures or accidents in previous assignments, previously recorded injuries or illnesses, or the aftermath of an injury or illness. And the personnel leasing firm will certainly have less knowledge of and control over the work environment that may have caused, contributed to, or significantly aggravated an injury or illness. As described above, the two employers have shared responsibilities and may share information when there is a need to do so.

If Part 1904 records are inaccurate due to lack of reasonably reliable data about leased employees, there are ways for OSHA to address the problem. First, the OSH Act does not impose absolutely strict liability on employers. The controlling employer must make reasonable efforts to acquire necessary information in order to satisfy Part 1904, but may be able to show that it is not feasible to comply with an OSHA recordkeeping requirement. If entries for temporary workers are deficient in some way, the employer can always defend against citation by showing that it made the efforts that a reasonable employer would have made under the particular circumstances to obtain more complete or accurate data.

A few commenters suggested that OSHA should link the recording requirement to the duration of time that the contract or temporary employee works at a specific location (see, *e.g.*, Exs. 15: 185, 259, 341, 364). The National Wholesale Druggists Association (NWDA) believed that:

> [t]here should be a length-of-employment delineation to determine whether a temporary or contract employee illness or injury should be included in the OSHA log. OSHA should set a length of time that the contract or temporary employee must work in a location before requirements for OSHA log reporting are triggered. By setting a length of employment standard, OSHA will not only eliminate the possibility of duplicative reporting of injuries and illnesses but will also eliminate the reporting of those short-term temporary employee assignments that may be covered by the temporary agency (Ex. 15: 185).

The Society of the Plastics Industry (SPI) recommended that the controlling firm should only keep records for permanently leased workers, stating ''[f]or temporary employees, the employer who pays an employee (with the presumption that this is for whom they work) should be required to keep the records. For permanently assigned, leased employees, SPI agrees that such cases should be recorded by the leasing employer'' (Ex. 15: 364). The Iowa Health Care Association asked whether a temporary nurse's aide who works in a facility for seven days to cover a vacationing permanent employee would be considered to be under the day-to-day supervision of the host facility (Ex. 15: 259).

OSHA has decided not to base recording obligations on the temporary employee's length of employment. Recording the injuries and illnesses of some temporary employees and not others would not improve the value or accuracy of the statistics, and would make the system even more inconsistent and complex. In OSHA's view, the duration of the relationship is much less important than the element of control. In the example of the temporary nurse's aide, for OSHA recordkeeping purposes the worker would be considered an employee of the facility for the days he or she works under the day-to-day supervision of the host facility.

Several commenters questioned whether or not temporary workers would be included in the total number of employees of that employer (see, *e.g.*, Exs. 15: 67, 356, 375, 437). The number of employees is used in two separate areas of the recordkeeping system. The number of employees is used to determine the exemption for smaller employers, and is entered on the annual summary of occupational injuries and illnesses. The Small Business Administration expressed concern over whether counting these workers as employees would affect the exemption for smaller employers, stating ''[t]he definition of ''employee'' goes beyond the statutory intent * * * Small businesses would not only have new obligations for coverage, but this methodology for counting employees would impact the opportunity for an exemption under this standard'' (Exs. 15: 67, 437). The American Petroleum Institute (API) was concerned about how the employee count affects the way that the host employer completes the annual summary, particularly the entries for hours worked by all employees and the average number of employees:

> [u]sing the OSHA-specified approach for determining the number of employees and hours worked, particularly for temporary employees and/or smaller establishments, is not often feasible. Assumption (1) [that the employer already has this data] is not true for temporary employees. Their hours worked are maintained by their contract employers. Host employers have dollar costs paid to each contractor employer. Therefore, getting employee counts and hours worked for temporaries requires making assumptions and estimating (Ex. 15: 375).

Because OSHA is using the common law concepts to determine which workers are to be included in the records, a worker who is covered in

terms of recording an injury or illness is also covered for counting purposes and for the annual summary. If a given worker is an employee under the common law test, he or she is an employee for all OSHA recordkeeping purposes. Therefore, an employer must consider all of its employees when determining its eligibility for the small employer exemption, and must provide reasonable estimates for hours worked and average employment on the annual summary. OSHA has included instructions on the back of the annual summary to help with these calculations.

The Texas Chemical Council argued that supervising employers should not have to record injuries or illnesses of agency-supplied workers unless the supervising employer has authority to hold these workers accountable for safety performance (Ex. 15: 159). According to this commenter, most temporary agencies limit the contracting employer to following the agencies' policies for corrective action for unacceptable performance. OSHA would simply point out that this is a matter within the contract arrangements between the two employers, and that OSHA intervention in this area is not necessary or appropriate. In any event, we believe that this should not determine who records occupational injuries and illnesses.

The Phibro-Tech company asked ''[i]f the facility is now responsible for tracking these injuries on their Form 300, will this affect the Worker's Compensation liability?'' (Ex. 15: 35). Tracking injuries and illnesses for OSHA purposes does not affect an employer's workers' compensation liability. An employer's liability for workers' compensation is a separate matter that is covered by state law. Employers who maintain workers' compensation coverage will be responsible for injuries and illnesses regardless of which employer records them for OSHA purposes.

Bell Atlantic Network Services asked ''[a]re contract employee OSHA recordable injury/illness incidents to be recorded on the same OSHA 300 log as employer's full-time employees? Are they to be identified as ''Contract/ Temporary'' employees on the OSHA 300 Log, i.e., under the column E—Job Title?'' (Ex. 15: 218). OSHA's view is that a given establishment should have one OSHA Log and only one Log. Injuries and illnesses for all the employees at the establishment are entered into that record to create a single summary at the end of the year. OSHA does not require temporary workers or any other types of workers to be identified with special titles in the job title column, but also does not prohibit the practice. This column is used to list the occupation of the injured or ill worker, such as laborer, machine operator, or nursing aide. However, OSHA does encourage employers to analyze their injury and illness data to improve safety and health at the establishment. In some cases, identifying temporary or contract workers may help an employer to manage safety and health more effectively. Thus an employer may supplement the OSHA Log to identify temporary or contract workers, although the rule does not require it.

OSHA received two suggestions that would provide an OSHA inspector with injury and illness data for temporary workers without putting their injuries on the host employer's OSHA 300 Log. The National Grain and Feed Association, Grain Elevator and Processing Society, and National Oilseed Processors Association jointly recommended:

> [e]mployers with employees who work under contract at a site other than the employer's should be required to provide a copy of the appropriate first report of injury or OSHA 301 to the site controlling employer. The site controlling employer can then maintain a file of Form 301's to facilitate OSHA's evaluation of workplace hazards (Ex. 15: 119).

The Douglas Battery Manufacturing (Ex. 15: 82) company suggested the following alternative:

> [a]n option that would allow an employer of temporary workers to determine the incident rate of the temporaries, would be to require the temporary agency/ contractor to forward a copy of its OSHA log for workers at a particular facility, to that facility by February of the next calendar year. The names and other personal identifiers of the temporary/contract workers could be removed prior to submittal but the data would be available on site for agency inspection purposes.

OSHA believes that neither of these alternatives would be an acceptable substitute for completing the 300 Log and 301 form for injured workers. The information would not be entered into the annual summary, so the establishment's statistics would not be complete. While these options would create a method (although a cumbersome method) for providing the information to a government inspector, the data would not be collected for statistical purposes.

Some commenters asked OSHA about how they should deal with a variety of other types of workers. The American Ambulance Association suggested that OSHA ''[s]pecifically exclude from the definition of employee, students who are unpaid by the company/institution which is providing a clinical or practice setting'' (Ex. 15: 226). The Maine Department of Labor (Ex. 15: 41) asked the following question:

> [q]uestions about how to report people such as Interns, Aspire (welfare) program participants, prison release workers and volunteers are now being asked. A clear definition needs to be established to account for all kinds of employees. Our Public Sector law requires us to count all people who are permitted to work. Maybe you don't want that inclusive a definition, but it is something to consider. We had to come up with a specific definition of volunteers to exclude sporadic volunteers (essentially those not working at a specific place at a specific time on a regular basis). With some workplaces utilizing volunteers and with welfare reform changes expected, you may want to prepare for these questions now.

These workers should be evaluated just as any other worker. If a student or intern is working as an unpaid volunteer, he or she would not be an employee under the OSH Act and an injury or illness of that employee would not be entered into the Part 1904 records. If the worker is receiving compensation for services, and meets the common law test discussed earlier, then there is an employer-employee relationship for the purposes of OSHA recordkeeping. The employer in that relationship must evaluate any injury or illness at the establishment and enter it into the records if it meets the recording criteria.

Section 1904.32 Annual Summary

At the end of each calendar year, section 1904.32 of the final rule requires each covered employer to review his or her OSHA 300 Log for completeness and accuracy and to prepare an Annual Summary of the OSHA 300 Log using the form OSHA 300–A, Summary of Work-Related Injuries and Illnesses, or an equivalent form. The summary must be certified for accuracy and completeness and be posted in the workplace by February 1 of the year following the year covered by the summary. The summary must remain posted until April 30 of the year in which it was posted.

Preparing the Annual Summary requires four steps: reviewing the OSHA 300 Log, computing and entering the summary information on the Form 300–A, certification, and posting. First, the employer must review the Log as extensively as necessary to make sure it is accurate and complete. Second, the employer must total the columns on the Log; transfer them to the summary form; and enter the calendar year covered, the name of the employer, the name and

address of the establishment, the average number of employees on the establishment's payroll for the calendar year, and the total hours worked by the covered employees. If there were no recordable cases at the establishment for the year covered, the summary must nevertheless be completed by entering zeros in the total for each column of the OSHA 300 Log. If a form other than the OSHA 300–A is used, as permitted by paragraph 1904.29(b)(4), the alternate form must contain the same information as the OSHA 300–A form and include identical statements concerning employee access to the Log and Summary and employer penalties for falsifying the document as are found on the OSHA 300–A form.

Third, the employer must certify to the accuracy and completeness of the Log and Summary, using a two-step process. The person or persons who supervise the preparation and maintenance of the Log and Summary (usually the person who keeps the OSHA records) must sign the certification statement on the form, based on their direct knowledge of the data on which it was based. Then, to ensure greater awareness and accountability of the recordkeeping process, a company executive, who may be an owner, a corporate officer, the highest ranking official working at the establishment, or that person's immediate supervisor, must also sign the form to certify to its accuracy and completeness. Certification of the summary attests that the individual making the certification has a reasonable belief, derived from his or her knowledge of the process by which the information in the Log was reported and recorded, that the Log and summary are ''true'' and ''complete.''

Fourth, the Summary must be posted no later than February 1 of the year following the year covered in the Summary and remain posted until April 30 of that year in a conspicuous place where notices are customarily posted. The employer must ensure that the Summary is not defaced or altered during the 3 month posting period.

Changes from the former rule. Although the final rule's requirements for preparing the Annual Summary are generally similar to those of the former rule, the final rule incorporates four important changes that OSHA believes will strengthen the recordkeeping process by ensuring greater completeness and accuracy of the Log and Summary, providing employers and employees with better information to understand and evaluate the injury and illness data on the Annual Summary, and facilitating greater employer and employee awareness of the recordkeeping process.

1. Company Executive Certification of the Annual Summary. The final rule carries forward the proposed rule's requirement for certification by a higher ranking company official, with minor revision. OSHA concludes that the company executive certification process will ensure greater completeness and accuracy of the Summary by raising accountability for OSHA recordkeeping to a higher managerial level than existed under the former rule. OSHA believes that senior management accountability is essential if the Log and Annual Summary are to be accurate and complete. The integrity of the OSHA recordkeeping system, which is relied on by the BLS for national injury and illness statistics, by OSHA and employers to understand hazards in the workplaces, by employees to assist in the identification and control of the hazards identified, and by safety and health professionals everywhere to analyze trends, identify emerging hazards, and develop solutions, is essential to these objectives. Because OSHA cannot oversee the preparation of the Log and Summary at each establishment and cannot audit more than a small sample of all covered employers' records, this goal is accomplished by requiring employers or company executives to certify the accuracy and completeness of the Log and Summary.

The company executive certification requirement imposes different obligations depending on the structure of the company. If the company is a sole proprietorship or partnership, the certification may be made by the owner. If the company is a corporation, the certification may be made by a corporate officer. For any management structure, the certification may be made by the highest ranking company official working at the establishment covered by the Log (for example, the plant manager or site supervisor), or the latter official's supervisor (for example, a corporate or regional director who works at a different establishment, such as company headquarters).

The company executive certification is intended to ensure that a high ranking company official with responsibility for the recordkeeping activity and the authority to ensure that the recordkeeping function is performed appropriately has examined the records and has a reasonable belief, based on his or her knowledge of that process, that the records are accurate and complete.

The final rule does not specify how employers are to evaluate their recordkeeping systems to ensure their accuracy and completeness or what steps an employer must follow to certify the accuracy and completeness of the Log and Summary with confidence. However, to be able to certify that one has a reasonable belief that the records are complete and accurate would suggest, at a minimum, that the certifier is familiar with OSHA's recordkeeping requirements, and the company's recordkeeping practices and policies, has read the Log and Summary, and has obtained assurance from the staff responsible for maintaining the records (if the certifier does not personally keep the records) that all of OSHA's requirements have been met and all practices and policies followed. In most if not all cases, the certifier will be familiar with the details of some of the injuries and illnesses that have occurred at the establishment and will therefore be able to spot check the OSHA 300 Log to see if those cases have been entered correctly. In many cases, especially in small to medium establishments, the certifier will be aware of all of the injuries and illnesses that have been reported at the establishment and will thus be able to inspect the forms to make sure all of the cases that should have been entered have in fact been recorded.

The certification required by the final rule may be made by signing and dating the certification section of the OSHA 300–A form, which replaces the summary portion of the former OSHA 200 form, or by signing and dating a separate certification statement and appending it to the OSHA Form 300–A. A separate certification statement must contain the identical penalty warnings and employee access information as found on the OSHA Form 300–A. A separate statement may be needed when the certifier works at another location and the certification is mailed or faxed to the location where the Summary is posted.

The certification requirement modifies the certification provision of the former rule (former paragraph 1904.5(c)), which required a certification of the Annual Summary by the employer or an officer or employee who supervised the preparation of the Log and Summary. The former rule required that individual to sign and date the year-end summary on the OSHA Form 200 and to certify that the summary was true and complete. Alternatively, the recordkeeper could, under the former rule, sign a separate certification statement rather than signing the OSHA form.

Both the former rule (paragraph 1904.9 (a) and (b)) and the proposed rule (paragraph 1904.16(a) and (b))

contained penalty provisions for the falsification of OSHA records or for the failure to record recordable cases; these provisions do not appear in the final rule. OSHA believes, based on the record and the Agency's own recordkeeping and audit experience, that this deletion will not affect the accuracy or completeness of the records, employers' recording obligations, or OSHA's enforcement powers. The criminal penalties referred to in paragraph 1904.9(a) of the former rule are authorized by section 17(g) of the OSH Act and do not need to be repeated in the final rule to be enforced. Similarly, the administrative citations and penalties referred to in paragraph 1904.9(b) of the former rule are authorized by sections 9 and 17 of the OSH Act. The warning statement on the final OSHA 300–A form or its equivalent should be sufficient to remind those who certify the forms of their legal obligations under the Act.

OSHA has revised the final rule's certification requirement in response to questions about its usefulness raised in the preamble to the proposal (61 FR 4047). In particular, the proposal noted that the person responsible for preparing the Log and Summary might, in some cases, have an incentive not to report injuries and illnesses, which would, of course, impair the accuracy of the Log. OSHA stated that ''some employers mistakenly believe that recording a case implies fault on the part of the employer'' and thus has the potential to adversely affect their ability to defend workers' compensation claims or lawsuits. Some employers also have established ''accountability systems'' that are based on the number of OSHA recordables, *i.e.,* that evaluate the safety performance of managers by the number of injuries and illnesses reported by workers in the departments or organizational units under their control. OSHA noted that individuals whose performance, promotions, compensation, and/or bonuses depend on the achievement of reduced injury and illness rates ''may be discouraged from fully and accurately recording injuries and illnesses (61 FR 4047) * * *'' Managers and supervisors being evaluated by the numbers'' also may have an incentive to avoid recording as many cases as possible.

OSHA proposed to change the former rule's certification requirements. In the proposed rule, OSHA proposed to require that a responsible company official certify to the accuracy and completeness of the Log and Summary. According to the proposal, that person would sign the summary to certify that ''he or she has examined the OSHA Injury and Illness Log and Summary and that the entries on the form and the year-end summary are true, accurate, and complete'' (61 FR 4060). ''Responsible company official'' was defined in the proposal as ''an owner of the company, the highest ranking company official working at the establishment, or the immediate supervisor of the highest ranking company official working at the establishment'' (61 FR 4059). By requiring a high level individual to sign each establishment Log certification, the proposal sought to create an incentive for that official to take steps to ensure the accuracy and completeness of the information on the log or face penalties for failing to do so.

Several commenters (see, *e.g.*, Exs. 15: 50, 105, 415) confirmed that an underreporting incentive did exist under the former rule's certification system. For example, the International Chemical Workers' Union (Ex. 15: 415) and Mr. George Cook (Ex. 15: 50) noted the potential for this problem to arise in their comments to the record. Harsco Corporation (Ex. 15: 105) pointed out that a contractor's accident rate will affect its ability to bid for jobs, and there is thus an incentive to keep rates low by not recording all injuries and illnesses.

There were many responses to the proposed change in the certification requirement. In general, a broad cross-section of commenters (see, *e.g.*, Exs. 15: 70, 127, 136, 137, 141, 153, 163, 170, 224, 266, 278, 324, 371, 407, 418, 429) gave unqualified support to the proposal's certification by a ''responsible corporate official.'' Typical of these comments was the New Jersey Department of Labor's statement that the proposed change would result in heightened awareness of health and safety problems by management, enhanced efforts to reduce workplace injuries and illnesses, and more accurate reporting (Ex. 15: 70). The AFL–CIO noted that requiring top corporate officials to be responsible ''represents a fundamental change in the importance of data gathering in the workplace'' (Ex. 15: 418).

A number of commenters expressed reservations about the definition of ''responsible corporate official'' and the extent of the responsibility and/or legal liability such certification might impose on certifying officials. Some commenters argued that it was unreasonable for a high corporate official, who might not be familiar with the recordkeeping function and its legal requirements, to certify to the accuracy and completeness of the Log and Summary. These commenters argued that it would be more appropriate for a high level management official, industrial hygienist, or director of health and safety to certify the Log and Summary because these individuals are already responsible for ensuring the accuracy and completeness of the Log, especially in multi-establishment businesses where recordkeeping is centralized (see, *e.g.*, Exs. 21; 25; 27; 33; 15: 44, 48, 65, 122, 132, 133, 147, 154, 161, 169, 174, 176, 193, 194, 199, 203, 231, 242, 263, 269, 270, 272, 273, 283, 284, 289, 290, 292, 295, 297, 299, 301, 304, 305, 317, 325, 329, 332, 341, 345, 346, 348, 364, 368, 377, 385, 386, 387, 403, 405, 410, 412, 413, 420, 425, 442). Two commenters suggested that, if a high level official were to be responsible for the certification, he or she should only be required to certify that the ''[c]ompany has * * * taken reasonable steps to ensure the accuracy of the logs'' (Exs. 15: 200, 442). Several representatives from the construction industry (see, *e.g.*, Exs. 15: 126, 342, 355) urged OSHA to make sure that any certification provision reflect the operation of multi-employer construction sites. These commenters recommended that the certifying official either be the senior official on-site or that person's immediate superior.

Other employer representatives believed that the broad nature of the proposed certification could make the certification vulnerable to legal liability (see, *e.g.*, Exs. 20; 33; 15: 122, 133, 147, 149, 176, 193, 199, 201, 205, 220, 231, 236, 272, 273, 284, 290, 292, 297, 301, 304, 313, 318, 320, 335, 345, 346, 352, 353, 368, 373, 375, 389, 396, 424, 425, 427, 428, 430). The National Association of Manufacturers (Ex. 15: 305), in a statement that is representative of the views of these commenters, said that:

> [t]he language of the certification is totally impractical and unreasonable in that it is written as a certification of absolute completeness and accuracy. This creates such an unreasonably high standard that no one should legitimately be asked or required to sign it. As a general rule, we believe an individual would be expected to have significantly better knowledge of the information on his/her personal income tax return than on the OSHA Form 300; yet even the certification on the personal income tax return includes the language ''to the best of my knowledge and belief.'' This clause must be added to the certifying language.

Numerous commenters favored a dual level of accountability, with a first level certification by the ''responsible company official,'' as defined in the proposal, and a second level certification required by a high level corporate official with safety and health responsibilities (see, *e.g.*, Exs. 20, 15: 65, 89, 182, 369, 380, 409, 415). These

participants recommended that OSHA require a more senior official, at a corporate level beyond the establishment keeping the records, additionally certify that the company had made a good faith effort to ensure accurate and complete records for all of the employer's establishments. The American Automobile Manufacturers Association (AAMA) stated that it:

> [a]grees that a corporate official responsible for health and safety and the highest ranking company official at an establishment should certify that a good faith effort for proper recordkeeping has taken place, and the individual responsible for day-to-day OSHA recordkeeping should certify the accuracy and completeness of the log (Ex. 15–409).

OSHA has not adopted a dual certification requirement because one certification should be enough to make sure that the records are accurate. In addition, a dual certification requirement would increase the complexity and burdens of the final rule, without significantly adding incentives for employers to keep better records.

Some commenters wished OSHA to maintain the former rule's approach to certification. These participants were generally skeptical of senior management certification, characterizing it as impractical, onerous, burdensome, unrealistic, intrusive, and infringing on the prerogative of management to designate the appropriate person(s) to certify the Log (see, *e.g.*, Exs. 15: 9, 15, 39, 45, 60, 89, 96, 132, 149, 156, 183, 184, 185, 195, 200, 201, 203, 204, 213, 218, 225, 239, 259, 260, 262, 265, 271, 272, 303, 304, 313, 317, 318, 320, 332, 335, 338, 344, 352, 353, 360, 373, 378, 389, 390, 392, 401, 406, 414, 423, 424, 427, 428, 430, 431). According to the Battery Council International, ''[t]he threat of civil and criminal liability provides more than enough incentive to ensure the accuracy of the recordkeeping Log and Summary'' (Ex. 15: 161). Mallinckrodt Chemical, Inc., and the Interconnecting and Packaging Electronic Circuits Corporation echoed this belief (Exs. 15: 69, 172). The Vulcan Chemical Company went so far as to recommend that OSHA delete certification requirements completely and rely only on the proposed penalty provisions (Ex. 15: 171).

Most commenters opposing high-level management certification argued that management-designated, well-qualified, lower level administrative personnel perform the recordkeeping function and can therefore best certify to the accuracy of the OSHA 300 Log (see, *e.g.*, Exs. 15: 69, 220, 225, 227, 281, 297, 305, 313, 352, 353). According to the American Textile Manufacturers Institute (Ex. 15: 156), ''[a] corporate official (*i.e.,* safety director, human resources director, Chief Executive Officer) should never be required to certify the accuracy of the logs. Commenters also stated that placing the responsibility on senior management would increase the economic and paperwork burden of the rule because these individuals would need additional training and would conduct audits, particularly at businesses with many work locations (see, *e.g.*, Exs. 15 : 213, 259, 375, 395). A few commenters stated that none of OSHA's proposed approaches, including the Log and Summary certification, would significantly decrease the financial incentives employers have for underreporting (see, *e.g.*, Exs. 15: 39, 199, 406). The Ogletree, Deakins, Nash, Smoak & Stewart Coalition (ODNSSC) said that ''[i]n the final analysis, the one measure that will have the greatest effect in fostering the maintenance of accurate logs is finally within the grasp of all interested parties: the promulgation of a final rule * * * that is well conceived, makes intuitive and analytical sense, and as such is largely accepted within the regulated community'' (Ex. 15: 406).

Although OSHA believes that the final rule has many features that will enhance the accuracy and completeness of reporting, the Agency has included a company executive level of certification in the final rule. OSHA believes that company executive certification will raise employer awareness of the importance of the OSHA records, improve their accuracy and completeness (and thus utility), and decrease any underreporting incentive.

The final rule therefore requires a higher level company official to certify to their accuracy and completeness. Thus the final rule reflects OSHA's agreement with those commenters who stated that the Log and Summary must be actively overseen by higher level management and that certification by such an official would make management's responsibility for the accuracy and completeness of the system clear (see, *e.g.*, Exs. 20; 15: 31, 65, 70, 89, 127, 136, 137, 141, 153, 163, 170, 182, 224, 266, 278, 324, 369, 371, 380, 396, 407, 409, 415, 418, 429). As the Union Carbide Company stated, having a higher authority sign a qualified certification of the summary ''[w]ould encourage activities, such as training and periodic reviews/audits of the logs, to improve the accuracy and completeness of the data'' (Ex. 15: 396). In the words of one safety consultant, ''[u]ntil there is a Corporate Commitment the information will be suspect'' (Ex. 15: 31).

OSHA has slightly modified the proposed definition of responsible company official in the text of the final rule. In the final rule, the person who must perform the certification must be a company executive. OSHA does not believe that an industrial hygienist or a safety officer is likely to have sufficient authority to ensure the integrity of a company's recordkeeping process. Therefore, the final rule requires that the certification be provided by an owner of a sole proprietorship or partnership, an officer of the corporation, the highest-ranking official at the establishment, or that person's supervisor. OSHA believes that this definition takes into account and addresses the concerns of the comments received from construction employers (see, *e.g.*, Exs. 15: 105, 126.342, 355).

OSHA is also aware that senior management officials cannot be expected to have hands-on experience in the details of the logs and summaries and therefore that their certification attests to the overall integrity of the recordkeeping process. In response to numerous comments that certification by the responsible company official be qualified by the addition to the certification of a clause such as ''to the best of my knowledge and belief'' (see, *e.g.*, Exs. 20, 15: 122, 193, 199, 205, 220, 272, 273, 290, 305, 320, 335, 375, 396, 424, 425, 427, 428, 430), OSHA has added that the certification required by the final rule must be based on the official's ''reasonable belief'' that the Log and Summary are accurate and complete. Certification thus means that the certifying official has a general understanding of the OSHA recordkeeping requirements, is familiar with the company's recordkeeping process, and knows that the company has effective recordkeeping procedures and uses those procedures to produce accurate and complete records. The precise meaning of ''reasonable belief'' will be determined on a case-by-case basis because circumstances vary from establishment to establishment and decisions about the recordability of individual cases may differ, depending upon case-specific details.

2. Number of employees and hours worked. Injury and illness records provide a valuable tool for OSHA, employers, and employees to determine where and why injuries and illnesses occur, and they are crucial in the development of prevention strategies. The final rule requires employers to include in the Annual Summary (the OSHA Form 300–A) the annual average number of employees covered by the

Log and the total hours worked by all covered employees. In the proposal (61 FR 4037), OSHA stated that this information would facilitate hazard analysis and incidence rate calculations for each covered establishment. A number of commenters supported the proposed approach and felt that it would not be a burden on employers, as long as OSHA granted some flexibility to employers who did not have sophisticated recordkeeping systems (see, *e.g.*, Exs. 15: 48, 61, 70, 78, 153, 163, 181, 262, 310, 350, 369, 429). For example, the Safety Services Administration of the City of Mesa, Arizona, a small employer, stated:

> [f]or most employers, the average number of employees is readily available; the work hour totals may, or may not be so easily obtained, depending upon the book keeping methodology. For salaried employees, where detailed hourly records are not maintained, the 2,000 hr/yr would be used in any case. In our case, both employee numbers and total hours worked is available and presents no problem (Ex. 15: 48).

Other commenters stated that the total number of hours worked was readily available through payroll records and that calculating it would present only a minimal burden, but were opposed to the required inclusion of the annual average number of employees because this number is highly variable, difficult to assess where employment is seasonal and subject to high turnover, and not important to incidence calculations (see, *e.g.*, Exs. 15: 123, 145, 170, 225, 359, 375).

Other commenters opposed including in the summary the average number of employees and the total number of hours worked because they believed the costs of compiling this information would outweigh its benefits, which they believed to be minimal (see, *e.g.*, Exs. 15: 9, 44, 184, 195, 205, 214, 247, 272, 303, 308, 313, 335, 341, 352, 353, 412, 423, 431), especially in industries, like health care, with high turnover rates (Ex. 15: 341). One company estimated its cost of collecting data on total hours worked to be $200,000 to $300,000 and to take four to six months (Ex. 15: 423). Sprint Corporation proposed that ''[i]ncidence rates continue to be calculated on an exception basis by the compliance officer at the time of the inspection. Larger employers, like Sprint, maintain such incidence rates by department or business unit and not by physical location as broken out on the OSHA log'' (Ex. 15: 133).

Some commenters recommended alternatives, including permitting employers to estimate the total number of hours worked, possibly by using the ANSI Z16.4 standard of 173.33 hours per month per employee, to minimize the burden (see, *e.g.*, Exs. 15: 272, 303, 335, 359) or excluding establishments with fewer than 100 employees from the requirement altogether (Ex. 15: 375).

OSHA's view is that the value of the total hours worked and average number of employees information requires its inclusion in the Summary, and the final rule reflects this determination. Having this information will enable employers and employees to calculate injury and illness incidence rates, which are widely regarded as the best statistical measure for the purpose of comparing an establishment's injury and illness experience with national statistics, the records of other establishment, or trends over several years. Having the data available on the Form 300–A will also make it easier for the employer to respond to government requests for the data, which occurs when the BLS and OSHA collect the data by mail, and when an OSHA or State inspector visits the facility. In particular, it will be easier for the employer to provide the OSHA inspector with the hours worked and employment data for past years.

OSHA does not believe that this requirement creates the time and cost burden some commenters to the record suggested, because the information is readily available in payroll or other records required to be kept for other purposes, such as income tax, unemployment, and workers' compensation insurance records. For the approximately 10% of covered employers who participate in the BLS's Annual Survey of Occupational Injuries and Illnesses, there will be no additional burden because this information must already be provided to the BLS. Moreover, the rule does not require employers to use any particular method of calculating the totals, thus providing employers who do not maintain certain records—for example the total hours worked by salaried employees—or employers without sophisticated computer systems, the flexibility to obtain the information in any reasonable manner that meets the objectives of the rule. Employers who do not have the ability to generate precise numbers can use various estimation methods. For example, employers typically must estimate hours worked for workers who are paid on a commission or salary basis. Additionally, the instructions for the OSHA 300–A Summary form include a worksheet to help the employer calculate the total numbers of hours worked and the average number of.

3. Extended posting period. The final rule's requirement increasing the summary Form 300–A posting period from one month to three months is intended to raise employee awareness of the recordkeeping process (especially that of new employees hired during the posting period) by providing greater access to the previous year's summary without having to request it from management. The additional two months of posting will triple the time employees have to observe the data without imposing additional burdens on the employer. The importance of employee awareness of and participation in the recordkeeping process is discussed in the preamble to sections 1904.35 and 1904.36.

The requirement to post the Summary on February 1 is unchanged from the posting date required by the former rule. As OSHA stated in the proposal (61 FR 4037) ''one month (January) is a reasonable time period for completing the summary section of the form.'' Only three commenters disagreed (see, *e.g.*, Exs. 15: 347, 402, 409); two of these commenters suggested that 60 days were required to do so (Exs. 15: 347, 409). OSHA believes that, since the required process is simple and straightforward, 30 days will be sufficient. Delaying the posting any further would mean that employers would not have access to the Summary for a longer period, thus diminishing the timeliness of the posted information.

OSHA's proposal would have required employers to post the summary for one year, based on the Agency's preliminary conclusion that continuous posting presented no additional burden for employers and would be beneficial to employees (61 FR 4037–4038). The one-year posting period was unconditionally supported by a number of commenters (see, *e.g.*, Exs. 15: 70, 153, 154, 199, 277) and was supported by others on the condition that no updating of the posted summary be required (see, *e.g.*, Exs. 15: 262, 288, 435). The AAMA and the Ford Motor Co. supported a ten-month posting period (from March 1 to December 31) (Exs. 15: 347, 409).

A number of commenters stated that a one-year posting period was too long and would not be justified by the minimal benefits to be achieved by such year-long posting. Some of these participants contended that the Annual Summary does not continue to provide useful, accurate information after its initial posting and will not enhance employee awareness because, although posting of a new summary is noticed when it is done, it becomes ''wallpaper'' shortly thereafter, especially if it is on a cluttered bulletin board (see, *e.g.*, Exs. 33; 15: 9, 23, 39, 40, 45, 60, 66, 98, 107, 119, 121, 122, 176, 203, 204, 231, 232,

273, 281, 289, 301, 317, 322, 329, 335, 341, 344, 347, 348, 356, 358, 381, 389, 399, 405, 409, 414, 428, 430, 431, 434, 441). For example, the Witco Corporation predicted that the 12-month posting requirement ''[w]ill result in no one noticing the old Log's removal and the posting of a new one'' (Ex. 15: 107). One commenter even suggested that continuous posting ''[u]ndermines the Agency's intent in bringing the information to employees'' attention'' (Ex. 15: 428).

Other commenters argued that year-long posting was excessive because it created too great a burden on employers. They stated that extended posting would require employers to make periodic inspections to ensure that the summary had not been taken down, covered, or defaced (see, *e.g.*, Exs. 37, 15: 57, 80, 97, 151, 152, 179, 180, 272, 303, 335, 346, 381, 410, 431), and that this additional administrative burden, especially to employers with large establishments that now voluntarily post Logs in multiple locations, could be significant (see, *e.g.*, Exs. 15: 97, 184, 239, 272, 283, 297, 303, 304, 305, 348, 395, 396, 410, 424, 430). One suggestion made by commenters to minimize this burden was to post the Summary for one month at the establishment and then at a central location for the remaining eleven months (see, *e.g.*, Exs. 15: 151, 152, 179, 180) or to permit electronic posting (Ex. 15: 184). Other employers opposed the extended posting period on the grounds that a one-month period posting was sufficient to achieve OSHA's objectives (see, *e.g.*, Exs. 15: 9, 15, 39, 45, 49, 57, 69, 74, 80, 89, 97, 98, 116, 119, 133, 163, 182, 184, 195, 203, 287, 289, 335, 356, 396, 424, 427, 428, 441, 443), especially since employees have access to the summary at any time during the retention period (see, *e.g.*, Exs. 15: 9, 15, 69, 80, 98, 119, 136, 137, 141, 161, 200, 204, 224, 225, 266, 272, 278, 303, 312, 317, 324, 348, 374, 395, 405, 406, 410, 412, 431). Still other commenters thought the one-year period was too long but supported a two or even three-month posting period as adding little, if any, additional burden (see, *e.g.*, Exs. 37, 15: 78, 89, 199, 235, 256, 277).

After a review of all the comments received and its own extensive experience with the recordkeeping system and its implementation in a variety of workplaces, OSHA has decided to adopt a 3-month posting period. The additional posting period will provide employees with additional opportunity to review the summary information, raise employee awareness of the records and their right to access them, and generally improve employee participation in the recordkeeping system without creating a ''wallpaper'' posting of untimely data. In addition, OSHA has concluded that any additional burden on employers will be minimal at best and, in most cases, insignificant. All the final rule requires the employer to do is to leave the posting on the bulletin board instead of removing it at the end of the one-month period. In fact, many employers preferred to leave the posting on the bulletin board for longer than the required one-month period in the past, simply to provide workers with the opportunity to view the Annual Summary and increase their awareness of the recordkeeping system in general and the previous year's injury and illness data in particular. OSHA agrees that the 3-month posting period required by the final rule will have these benefits which, in the Agency's view, greatly outweigh any minimal burden that may be associated with such posting. The final rule thus requires that the Summary be posted from February 1 until April 30, a period of three months; OSHA believes that the 30 days in January will be ample, as it has been in the past, for preparing the current year's Summary preparatory to posting.

4. Review of the records. The provisions of the final rule requiring the employer to review the Log entries before totaling them for the Annual Summary are intended as an additional quality control measure that will improve the accuracy of the information in the Annual Summary, which is posted to provide information to employees and is also used as a data source by OSHA and the BLS. Depending on the size of the establishment and the number of injuries and illnesses on the OSHA 300 Log, the employer may wish to cross-check with any other relevant records to make sure that all the recordable injuries and illnesses have been included on the Summary. These records may include workers' compensation injury reports, medical records, company accident reports, and/or time and attendance records.

OSHA did not propose that any auditing or review provisions be included in the final rule. However, several commenters suggested that OSHA include requirements that would require employers to audit the OSHA 300 Log information (see, *e.g.*, Exs. 35; 36; 15: 31, 310, 418, 438). For example, the United Auto Workers (Ex. 15: 438) stated:

> [t]he most important change OSHA could make in recordkeeping rules would be to require employers to conduct an independent audit of the completeness of the record. The purpose of the audit would be to determine that no case went unrecorded, and that no disabling injury or illness was mislabeled as non lost workday. Such requirements were not in the proposal, but are desperately needed.

Linda Ballas (Ex. 15: 31), a safety consultant who performs audits of OSHA injury and illness records for employers, added [u]ntil there is Corporate Commitment the information will be suspect. * * * Audits are necessary.'' In fact, the Laborers' Health & Safety Fund of North America (Ex. 15: 310) recommended biennial third-party audits.

In the final rule, OSHA has not adopted regulatory language that requires formal audits of the OSHA Part 1904 records. However, the final rule does require employers to review the OSHA records as extensively as necessary to ensure their accuracy. The Agency believes that including audit provisions is not necessary because the high-level certification requirement will ensure that recordkeeping receives the appropriate level of management attention.

Some companies, especially larger ones, may choose to conduct audits, however, to ensure that the records are accurate and complete; many companies commented that they already perform records audits as part of their company's safety and health program. For example, the Ford Motor Company (Ex. 15: 347), Dow Chemical Company (Ex. 15: 335), and Brown & Root (Ex. 15: 423) reported that they audit their injury and illness records on a regular basis. Also, three commenters to the record were safety and health consultants who provide injury and illness auditing services to employers, in addition to other safety and health services (Exs. 15: 31, 345, 406). In the past, OSHA has entered into a number of corporate-wide settlement agreements with individual companies that included third-party audits of the employers' injury and illness records (*e.g.*, Ford, General Motors, Union Carbide). OSHA expects that many of these companies will continue to audit their injury and illness records and their recordkeeping procedures, and to take any other quality control measures they believe to be necessary to ensure the quality of the records. However, OSHA has not required records audits in the final rule because the Agency believes that the combination of final rule requirements providing for employee participation (§ 1904.35), protecting employees against discrimination for reporting work-related injuries and illnesses to their employer (section

1904.36), requiring review by employers of the records at the end of the year, and mandating two level certification of the records will provide the quality control mechanisms needed to improve the quality of the OSHA records.

Deletions from the former rule. Except for the foregoing changes discussed above, the final rule is generally similar to the former rule in its requirements for preparing, certifying and posting of the year-end Summary. However, some provisions of the former rule related to the Summary have not been included in the final rule. For example, the former rule required employers with employees who did not report to or work at a single establishment, or who did not report to a fixed establishment on a regular basis, to hand-deliver or mail a copy of the Summary to those employees. OSHA proposed to maintain this requirement, which was supported by one commenter (Ex. 15: 298) but opposed by many others because of the administrative cost of preparing such mailings, especially in high turnover industries like construction (see, *e.g.*, Exs. 15: 116, 132, 199, 200, 201, 312, 322, 329, 335, 342, 344, 355, 375, 395, 430, 440, 441). These commenters pointed out that employees who do not report to a single establishment still have the right to view the summary at a central location and to obtain copies of it.

In the final rule, OSHA has decided not to include the proposed requirement for individual mailings as unnecessary because final paragraph 1904.30(b)(3) requires that every employee be linked, for recordkeeping purposes, to at least one establishment keeping a Log and Summary that will be prepared and posted. In other words, every employee covered by the rule will have his or her injuries or illnesses recorded on a particular establishment's Log, even if that employee does not routinely report to that establishment or is temporarily working there. Thus every employee will have 3-month access to the Log and Summary at the posted location or may obtain a copy the next business day under paragraph 1904.35(b)(2)(iii), making the need for hand-delivery or mailing unnecessary.

Under the former rule, multi-establishment employers who closed an establishment during the year were not obligated to post an Annual Summary for that establishment. OSHA believes that this requirement is also unnecessary because it is obvious in such cases that there is no physical location at which to post the Summary. Closing an establishment does not, however, relieve an employer of the obligation to prepare and certify the Summary for whatever portion of the calendar year the establishment was operating, retain the Summary, and make the Summary accessible to employees and government officials.

Other comments. Some commenters availed themselves of the opportunity to comment on portions of the recordkeeping rule that OSHA did not propose to change. Some of these comments addressed the issue of whether to post a year-end Summary at all. Posting the Summary was almost unanimously supported, but a few commenters opposed posting on the grounds that posting had ''[a] de minimus effect on employee safety and accident prevention'' (Ex. 15: 46), was not an accurate measure of current safety and health conditions (see, *e.g.*, Exs. 15: 95, 126), or was unnecessary and burdensome for their industry (*e.g,* the maritime industry (Ex. 15: 95), construction industry (Ex. 15: 126), and retail store industry (Ex. 15: 367)). Although opposed to the posting of a year-end summary, one company urged OSHA to require that year-end summaries be submitted to OSHA (Ex. 15: 63).

Alternatives to posting were suggested by some commenters. One advocated annual informational meetings with employees instead (Ex. 15: 126), while others supported mailing the summary to each employee and providing the summary to new employees at orientation (Ex. 15: 154) or by e-mail (Ex. 15: 156). Three employers recommended excluding small establishments (fewer than 20, 50 or 100 employees) from posting if all column totals on the Log were zero (see, *e.g.*, Exs. 15: 304, 358, 375).

OSHA believes, based on the record evidence and its own extensive recordkeeping experience, that posting the Summary is important to safety and health for all the reasons described above. Some of the suggested alternatives may be useful, and OSHA encourages employers to use any practices that they believe will enhance their own and employee awareness of safety and health issues, provided that they also comply fully with the final rule's posting requirements.

Another issue raised by commenters was whether multi-establishment employers should be required to post their summaries in each establishment, as required by the former rule. Employers generally supported posting at each establishment, although one commenter opposed posting at each establishment in multi-establishment companies as overly burdensome and without benefit (Ex. 15: 356). One construction employer argued that construction companies should be allowed to post their summaries at a centralized location and only be required to do so at the establishment if it was a major construction site in operation for at least one year (Ex. 15: 116).

OSHA believes that permitting centralized posting only would substantially interfere with ready employee access to the Log, especially for employers operating many different sites. The record does not suggest that retaining the requirement for posting summaries at each establishment will be burdensome to employers and the final rule accordingly requires that multi-establishment employers post a Summary in each establishment relating that establishment's injury and illness experience for the preceding year.

Section 1904.33 Retention and Updating

Section 1904.33 of the final rule deals with the retention and updating of the OSHA Part 1904 records after they have been created and summarized. The final rule requires the employer to save the OSHA 300 Log, the Annual Summary, and the OSHA 301 Incident Report forms for five years following the end of the calendar year covered by the records. The final rule also requires the employer to update the entries on the OSHA 300 Log to include newly discovered cases and show changes that have occurred to previously recorded cases. The provisions in section 1904.33 state that the employer is not required to update the 300A Annual Summary or the 301 Incident Reports, although the employer is permitted to update these forms if he or she wishes to do so.

As this section makes clear, the final rule requires employers to retain their OSHA 300 and 301 records for five years following the end of the year to which the records apply. Additionally, employers must update their OSHA 300 Logs under two circumstances. First, if the employer discovers a recordable injury or illness that has not previously been recorded, the case must be entered on the forms. Second, if a previously recorded injury or illness turns out, based on later information, not to have been recorded properly, the employer must modify the previous entry. For example, if the description or outcome of a case changes (a case requiring medical treatment becomes worse and the employee must take days off work to recuperate), the employer must remove or line out the original entry and enter the new information. The employer also has a duty to enter the date of an employee's return to work or the date of an injured worker's death on the Form 301; OSHA considers the

entering of this information an integral part of the recordkeeping for such cases. The Annual Summary and the Form 301 need not be updated, unless the employer wishes to do so. The requirements in this section 1904.33 do not affect or supersede any longer retention periods specified in other OSHA standards and regulations, *e.g.*, in OSHA health standards such as Cadmium, Benzene, or Lead (29 CFR 1910.1027, 1910.1028, and 1910.1025, respectively).

The proposed rule (61 FR 4030, at 4061) would have reduced the retention and updating periods for these records to three years. The language of the proposal was as follows:

(a) Retention. OSHA Forms 300 and 301 or equivalents, year-end summaries, and injury and illness records for ''subcontractor employees'' as required under Sec. 1904.17 of this Part shall be retained for 3 years following the end of the year to which they relate.

(b) Updating. During the retention period, employers must revise the OSHA Form 300 or equivalent to include newly discovered recordable injuries or illnesses. Employers must revise the OSHA Form 300 to reflect changes which occur in previously recorded injuries and illnesses. If the description or outcome of a case changes, remove the original entry and enter the new information to reflect the more severe consequence. Employers must revise the year-end summary at least quarterly if such changes have occurred.

Note to Sec. 1904.9: Employers are not required to update OSHA Form 301 to reflect changes in previously recorded cases.

A number of commenters supported the proposed reduction in the retention period from five years to three years on the ground that it would reduce administrative burdens and costs without having any demonstrable effect on safety and health (see, *e.g.*, Exs. 22, 33, 37, 15: 9, 39, 61, 69, 82, 89, 95, 107, 121, 133, 136, 137, 141, 154, 173, 179, 181, 184, 201, 204, 213, 224, 225, 239, 242, 263, 266, 269, 270, 272, 278, 283, 288, 304, 307, 321, 322, 332, 334, 341, 347, 348, 368, 375, 377, 384, 387, 390, 392, 395, 396, 397, 409, 413, 424, 425, 427, 443). According to the American Iron and Steel Institute (AISI), whose views were typical of those of this group of commenters, a three-year retention period:

[s]hould reduce employers' administrative costs without sacrificing any accuracy in the records of serious illnesses and injuries. Additional cost savings could be accomplished by limiting the time period during which an employer must update its injury and illness records to one year. Such a change would allow employers to close the books sooner on the health and safety data for a particular year, without resulting in any loss of accuracy. In AISI's experience, it is extremely rare that any new information on an illness or injury surfaces more than a few months after an injury is recorded, while the administrative cost of having to update a log and summary is significant for the rare cases that yield information after one year (Ex. 15: 395).

Several commenters, however, opposed the three-year retention period and favored the former rule's five-year retention period (see, *e.g.*, Exs. 20, 24, 15: 153, 350, 359, 379, 407, 415, 429). For example, the American Industrial Hygiene Association (AIHA) opposed the shorter retention period, stating:

[A]IHA opposes OSHA's proposed change of OSHA recordkeeping record retention from 5 to 3 years. There is little work in record retention, and much information lost if they are discarded. We recommend maintaining the 5 year retention for OSHA Logs and supporting 301 forms (Ex. 15: 153.)

According to NIOSH, which favored the longer retention period, retaining records for five years:

[a]llows the aggregation of data over time that is important for evaluating distributions of illnesses and injuries in small establishments with few employees in each department/job title. Also, the longer retention period is important for the observation of trends over time in the recognition of new problems and the evaluation of the effectiveness of intervention in large companies. In addition, the longer retention period makes possible the assessment of trends over time or to determine if a current cluster of cases is unusual for that industry. Reducing the retention period would thus have a detrimental effect on these types of analysis, which are frequently used by NIOSH in field studies (Ex. 15: 407).

The American Industrial Hygiene Association recommended a longer retention period (up to 30 years) for the OSHA 301 form to accommodate occupational diseases with long latency periods (Ex. 15: 153).

In this final rule, OSHA has decided to retain the five-year retention requirement for OSHA injury and illness records because the longer time period will enable employers, employees, and researchers to obtain sufficient data to discover patterns and trends of illnesses and injuries and, in many cases, to demonstrate the statistical significance of such data.

In addition, OSHA has concluded that the five-year retention period will add little additional cost or administrative burden, since relatively few cases will surface more than three years after the injury and illness occurred, and the vast majority of cases are resolved in a short time and do not require updating. In addition, OSHA believes that other provisions of the final rule (*e.g.*, computerization of records, centralized recordkeeping, and the capping of day counts) will significantly reduce the recordkeeping costs and administrative burden associated with the tracking of long-term cases.

The comments on the proposed rule's updating requirements for individual entries on the OSHA Form 300 reflected a considerable amount of confusion about the proposed rule's requirements for updating. Because the proposed rule did not state how frequently the form was to be updated, some employers interpreted the proposed rule as permitting quarterly updates (proposed by OSHA for year-end summaries only) during the retention period (see, *e.g.*, Exs. 15: 9, 61, 89, 170, 181, 288, 389). Some participants argued for even less frequent updating (see, *e.g.*, Exs. 15: 151, 152, 179, 180, 317, 348). Several employers recognized that the Log is an ongoing document and that information must be updated on a regular basis, preferably at the same frequency as required for initial recording (see, *e.g.* Exs. 15: 65, 201, 313, 346, 352, 353, 430). The final rule requires Log updates to be made on a continuing basis, *i.e.,* as new information is discovered. For example, if a new case is discovered during the retention period, it must be recorded within 7 calendar days of discovery, the same interval required for the recording of any new case. If new information about an existing case is discovered, it should be entered within 7 days of receiving the new information. OSHA has also decided to require updating over the entire five-year retention period. OSHA believes that maintaining consistency in the length of the retention and updating periods will simplify the recordkeeping process without imposing additional burdens on employers, because most updating of the records occurs during the first year following an injury or illness.

The comments OSHA received on the proposed quarterly updating of year-end summaries were mixed. Some thought that such updating would provide timely and accurate information to employees at little cost (see, *e.g.* Exs. 15: 9, 89, 170, 260, 262, 265, 401), while others saw the requirement as burdensome and costly and without commensurate value (see, *e.g.* Exs. 15: 78, 225, 289, 337, 406, 412). Typical of those commenters who viewed such a requirement as burdensome was the American Automobile Manufacturing Association (AAMA), which stated ''[u]pdating prior year totals on the annual summary(s) once posted, is of little value. The increase in total numbers is generally so modest as to not affect the overall magnitude of problems within an establishment'' (Ex. 15: 409).

Some commenters recommended that the summaries be updated less frequently, such as semi-annually (see, *e.g.*, Exs. 37, 15: 163). The National Safety Council (Ex. 15: 359) recommended quarterly updates the first year and annual updates thereafter. Others interpreted the proposed rule as requiring quarterly updates and re-certification and re-posting of the year-end summaries after the posting period had ended; these commenters opposed such a requirement as being overly burdensome (see, *e.g.*, Exs. 15: 181, 199, 201, 225, 272, 288, 303, 308, 351). Lucent Technologies (Ex. 15: 272), one of these commenters, urged OSHA to add the following qualifier to any requirement for the updating of the annual summary: ''[t]he quarterly update of the summary is for tracking purposes only and will not require re-certification or posting.''

After reviewing these comments and the evidence in the record, OSHA has decided not to require the updating of annual summaries. Eliminating this requirement from the final rule will minimize employers' administrative burdens and costs, avoid duplication, and avoid the complications associated with the certification of updated summaries, the replacement of posted summaries, and the transmission of summaries to remote sites. The Agency concludes that updating the OSHA Form 300 or its equivalent for a period of five years will provide a sufficient amount of accurate information for recordkeeping purposes. OSHA is persuaded that updating the year-end summary would provide little benefit as long as the information from which the summaries are derived (the OSHA Form 300) is updated for a full five-year period.

Very few comments were received on OSHA's proposed position not to require the updating of the 301 form. All of the comments received supported OSHA's proposed approach (see, *e.g.*, Exs. 15: 260, 262, 265, 401). OSHA does not believe that updating the OSHA Form 301 will enhance the information available to employers, employees, and others sufficiently to warrant including such a requirement in the final rule. However, the final rule makes it clear that employers may, if they choose, update either the Summary or the Form 301.

Section 1904.34 Change in Business Ownership

Section 1904.34 of the final rule addresses the situation that arises when a particular employer ceases operations at an establishment during a calendar year, and the establishment is then operated by a new employer for the remainder of the year. The phrase ''change of ownership,'' for the purposes of this section, is relevant only to the transfer of the responsibility to make and retain OSHA-required injury and illness records. In other words, if one employer, as defined by the OSH Act, transfers ownership of an establishment to a different employer, the new entity becomes responsible for retaining the previous employer's past OSHA-required records and for creating all new records required by this rule.

The final rule requires the previous owner to transfer these records to the new owner, and it limits the recording and recordkeeping responsibilities of the previous employer only to the period of the prior owner. Specifically, section 1904.34 provides that if the business changes ownership, each employer is responsible for recording and reporting work-related injuries and illnesses only for that period of the year during which each employer owned the establishment. The selling employer is required to transfer his or her Part 1904 records to the new owner, and the new owner must save all records of the establishment kept by the prior owner. However, the new owner is not required to update or correct the records of the prior owner, even if new information about old cases becomes available.

The former OSHA injury and illness recording and reporting rule also required both the selling and buying employers to record and report data for the portion of the year for which they owned the establishment. Although the former rule required the purchasing employer to preserve the records of the prior employer, it did not require the prior employer to transfer the OSHA injury and illness records to the new employer. Section 1904.11 of the former rule stated:

> Where an establishment has changed ownership, the employer shall be responsible for maintaining records and filing reports only for that period of the year during which he owned such establishment. However, in the case of any change in ownership, the employer shall preserve those records, if any, of the prior ownership which are required to be kept under this part. These records shall be retained at each establishment to which they relate, for the period, or remainder thereof, required under § 1904.6.

The section of OSHA's proposed rule addressing ''change of ownership'' mirrored the former rule with only slight language changes, as follows:

> Where an establishment has changed ownership, each employer shall be responsible for recording and reporting occupational injuries and illnesses only for that period of the year during which he or she owned such establishment, but the new owner shall retain all records of the establishment kept by the prior owner, as required by § 1904.9(a) of this Part.

Some commenters felt that this proposed section suggested that new owners could be held responsible for obtaining OSHA injury and illness records, but that the former owners were not required to provide them (see, *e.g.*, Exs. 15: 119 298, 323, 356, 397, 323). This interpretation, which would clearly place the new owner in an untenable position, was not accurate. Consequently, to avoid confusion in the future, the final rule requires former owners to transfer their Part 1904 records to the new owner. This requirement ensures that the continuity of the records is maintained when a business changes hands.

Sections 1904.35 Employee Involvement, and 1904.36, Prohibition Against Discrimination

One of the goals of the final rule is to enhance employee involvement in the recordkeeping process. OSHA believes that employee involvement is essential to the success of all aspects of an employer's safety and health program. This is especially true in the area of recordkeeping, because free and frank reporting by employees is the cornerstone of the system. If employees fail to report their injuries and illnesses, the ''picture'' of the workplace that the employer's OSHA forms 300 and 301 reveal will be inaccurate and misleading. This means, in turn, that employers and employees will not have the information they need to improve safety and health in the workplace.

Section 1904.35 of the final rule therefore establishes an affirmative requirement for employers to involve their employees and employee representatives in the recordkeeping process. The employer must inform each employee of how to report an injury or illness, and must provide limited access to the injury and illness records for employees and their representatives. Section 1904.36 of the final rule makes clear that § 11(c) of the Act prohibits employers from discriminating against employees for reporting work-related injuries and illnesses. Section 1904.36 does not create a new obligation on employers. Instead, it clarifies that the OSH Act's anti-discrimination protection applies to employees who seek to participate in the recordkeeping process.[3]

[3] The relevant language of Section 11(c) that ''No person shall discharge or in any manner discriminate against any employee * * * because of the exercise by such employee on behalf of himself or others of any rights afforded by this Act.''

Under the employee involvement provisions of the final rule, employers are required to let employees know how and when to report work-related injuries and illnesses. This means that the employer must establish a procedure for the reporting of work-related injuries and illnesses and train its employees to use that procedure. The rule does not specify how the employer must accomplish these objectives. The size of the workforce, employees' language proficiency and literacy levels, the workplace culture, and other factors will determine what will be effective for any particular workplace.

Employee involvement also requires that employees and their representatives have access to the establishment's injury and illness records. Employee involvement is further enhanced by other parts of the final rule, such as the extended posting period provided in section 1904.32 and the access statements on the new 300 and 301 forms.

These requirements are a direct outgrowth of the issues framed by OSHA in the 1996 proposal. In that **Federal Register** notice, OSHA proposed an employee access provision, § 1904.11(b), and discussed the issue at length in the preamble (61 FR 4038, 4047, and 4048). OSHA did not propose a specific provision for employee involvement in the reporting process, but raised the issue for discussion in the preamble (61 FR 4047–48) (*see* Issue 7. Improving employee involvement). The proposed rule did contain a reference to section 11(c) of the OSH Act and its applicability to retaliatory discrimination by employers against employees who report injuries or illnesses (61 FR 4062).

Specifically, OSHA noted in the NPRM that the Keystone Dialogue report (Ex. 5) advocated greater employee awareness and involvement in the recordkeeping process to improve the process and enhance safety and health efforts in general. There was agreement among members of the Dialogue group that, for a number of reasons, among them lack of knowledge, fear of reprisal, and apathy, ''employees often do not seek access to injury/illness logs (to a sufficient extent) * * * [and] that overall workplace safety and health would benefit if the information in the logs were more widely known. * * *'' In this regard, the group made several recommendations to modify the recordkeeping process and to involve employees in accident prevention efforts:

- OSHA should require employers to notify employees individually of log entries for each recordable case and their right to access the records, either by providing them with a copy of the 101 form or the log, by having the employee initial or otherwise acknowledge the log entry, or by other means negotiated with a designated employee representative;
- Employers should inform employees of an affirmative duty to bring cases to the employer's attention;
- OSHA should add statements to the OSHA recordkeeping forms 101 and 200 that inform employees of their right to access the 200 form;
- OSHA should extend the posting period for the 200 form from one month to 12 months;
- Employers should share data with employees and members of safety committees;
- Employers should include more employees in accident investigations and analyses; and
- Detailed survey data systems should be developed so those employees could assist employers in evaluating accident and exposure risks associated with their work processes.

OSHA also noted that the General Accounting Office (GAO) report (Ex. 3) identified employee lack of knowledge and understanding of the recordkeeping system as one cause of the underreporting of occupational injuries and illnesses. Based on these and other reports and OSHA's compliance experience, OSHA requested comment in the proposal on (1) whether employers should notify employees that their injuries or illnesses have been entered into the records, (2) if so, how employers could meet such a requirement and the degree of flexibility OSHA should give employers, (3) any other ideas for improving employee involvement in the recordkeeping system, and (4) the costs and benefits of alternate proposals.

These issues drew considerable comment during the rulemaking. With few exceptions (see, *e.g.*, Exs. 15: 13, 78, 201, 389, 406), commenters generally supported increasing employee awareness and involvement in the recordkeeping process in some form (see, *e.g.*, Exs. 15: 26, 85, 87, 154, 170, 199, 234, 310, 341, 357, 378, 414, 415, 418, 426). For example, some commenters supported increasing employee awareness by requiring year-round posting of the OSHA 300 Log (see, *e.g.*, Exs. 15: 154, 170, 199, 415, 426), adding an employee accessibility statement to the OSHA 300 Log (Ex. 15: 418) , and requiring employee training on recordkeeping issues and procedures (Ex. 15: 418). A number of commenters also discussed their own efforts to involve employees in various recordkeeping activities, such as in filling out accident forms (see, *e.g.*, Exs. 15: 23, 87, 225), assisting in accident investigations (see, *e.g.*, Exs. 15: 170, 357, 425), and reviewing accident data (see, *e.g.*, Exs. 15: 260, 262, 265, 310, 357, 401, 414).

However, most employers, including many who supported various methods to increase employee awareness and involvement in the process, opposed a provision requiring employers to notify individual employees that their injuries have been recorded on the Log because, in their views, such a requirement would not be likely to achieve OSHA's stated objective and would be too burdensome and costly for employers (see, *e.g.*, Exs. 15: 9, 49, 60, 76, 82, 85, 95, 109, 123, 145, 154, 170, 172, 199, 204, 218, 225, 262, 281, 283, 288, 324, 341, 357, 374, 393, 406, 426). Representative of these comments were those of AT&T and Lucent Technologies, which pointed out that workers are currently required to be notified about the status of job-related incidents by workers' compensation regulations and company benefit programs and that separate notification of an OSHA 300 Log entry would therefore be confusing and redundant (Exs. 15: 272 and 15: 303).

On the other hand, individual notification of employees was supported by commenters from the unions and professional organizations, as well as by some employers (see, *e.g.*, Exs. 15: 156, 181, 233, 247, 310, 350, 369, 414). For example, the American Association of Occupational Health Nurses (Ex. 15: 181) supported notification ''[a]s a means of improving employee cooperation and helping employees recognize their role in working safely and promoting a safe workplace.'' Those supporting notification suggested that reasonable means of providing such notification would be direct mail, including a notice in a pay envelope, or e-mailing a notice and/or the OSHA 301 form to affected employees (see, *e.g.*, Exs. 15: 310, 350).

The National Safety Council's comment (Ex. 15: 359) typifies the views of these commenters:

> [w]e believe that employee involvement in occupational safety and health issues is highly desirable and that notification is one aspect of employee involvement. * * * If OSHA were to require notification, then OSHA should require each employer to create and comply with its own written notification policy—perhaps subject to some limitation such as notification within 7–14 days of entry on the Log. The OSHA compliance officer can verify compliance with the company's policy on a test basis during an inspection.

Other commenters (see, *e.g.*, Exs. 15: 234, 283, 348, 426) agreed that the final rule should not specify how employee notification should be accomplished. For example, E. I. du Pont de Nemours Corporation (Ex. 15: 348) stated:

[l]egislating how people communicate is confining. Many companies do a fine job of notifying employees about injuries, investigation findings, hazard reduction, and ways to contribute to a safer workplace. Mandating a particular method would be counterproductive to those organizations already doing a good job. * * * We suggest that unless full implications of involving employees in the process are clearly understood (and are not prohibited by any other federal agency) no guideline should be written—but perhaps suggestions of ways successful companies have worked with their employees to improve safety performance could be provided and would be useful.

One participant suggested a policy of having the injured employee view the Log to verify its accuracy, noting that ''[t]his procedure * * * does not appear to place additional costs or undue burden on the employer'' (Ex. 15: 163). Another recommended a ''face-to-face advisory'' after an investigation of the accident had been completed (Ex. 15: 414). The American Textile Manufacturers Institute (Ex. 15: 156) suggested more proactive approaches:

[o]ther methods for improving employee involvement in the injury and illness recordkeeping system include giving employees accident causation and prevention information from the records. In addition, information about departments, accident types, injury types, hazards and contributing factors, etc., could and should be shared for the benefit of employer and employees.

The AFL–CIO, United Auto Workers (UAW), Services Employees International Union (SEIU), and MassCOSH addressed the reporting disincentive that occurs when employees are threatened, disciplined, or discriminated against for reporting injuries or illnesses (Exs. 58X, 15: 79, 418, 438). MassCOSH recounted how health care workers were disciplined for reporting multiple needle stick injuries, and the United Auto Workers noted that some injury victims were subject to drug testing (Ex. 15: 438). The unions recommended that discriminatory treatment of employees who report injuries should be presumed to be a violation of section 11(c), the anti-discrimination provision of the OSH Act (see, *e.g.*, Exs. 48, 58X, 15: 379, 418, 438). Specifically, the UAW (Ex. 15: 438) recommended that the following regulatory text be added to the final rule:

[r]eporting * * * an injury or illness to management is an activity in support of the purposes of the Act. Since an injury report may trigger an employer's responsibility to abate a hazard, such report is an exercise of an employee's right under the Act and therefore protected activity under Section 11(c) of the Act. Adverse action by an employer following such a report shall be presumed to be discrimination. Examples of adverse action are verbal warnings, disparate treatment, additional training provided only to injury victims, disciplinary action of any kind, or drug testing. Suffering an injury or illness by itself shall not be considered probable cause to trigger a drug test. An employer may rebut the presumption of discrimination by showing substantial evidence that injured employees receive consistent treatment to those who have not suffered injuries. Granting of prizes or compensation to employees or groups of employees who do not report injuries is discrimination against those employees who do report injuries. Therefore, such programs are violations of Section 11(c) of the Act.

The AFL–CIO (Ex. 15: 4218) supported this language and, along with the Union of Needletrades, Industrial and Textile Employees (UNITE) (Ex. 15: 380), also recommended that the rule include a prohibition against retaliation or discrimination that would be enforced in the same manner as other violations of the recordkeeping rule (Ex. 15: 418). The AFL–CIO (Ex. 15: 418) also requested that OSHA include in the final rule:

[a]n affirmative obligation on employers to inform employees of their right to report injuries or illnesses without fear of reprisal and to gain access to the Log 300 and to the Form 301 with certain limitations. At a minimum, the Log 300 should contain a statement, which informs employees of their rights and protections afforded under the rule. We recommend the following language be added to the log: 'Employees have a right to report work-related injuries and illnesses to their employer and to gain access to the Log 300 and Form 301.'

OSHA has concluded that the rulemaking record overwhelmingly demonstrates that employee awareness and involvement is a crucial part of an effective recordkeeping program, as well as an overall safety and health program. There was little disagreement over this point among participants in the rulemaking, whether they represented management, labor, government or professional associations (see, *e.g.*, Exs. 15: 26, 85, 87, 154, 170, 199, 234, 310, 341, 357, 378, 414, 415, 426). There was also no disagreement with the unions' contention that employees should not be retaliated against for reporting work-related injuries and illnesses and for exercising their right of access to the Log and Incident Report forms. The prominent employee involvement issues in the rulemaking were thus not whether employee involvement should be strengthened but to what extent and in what ways employees should be brought into the process.

In response to this support in the record, OSHA has strengthened the final rule to promote better injury and illness information by increasing employees' knowledge of their employers' recordkeeping program and by removing barriers that may exist to the reporting of work-related injuries and illnesses. To achieve this goal, the final rule establishes a simple two-part process for each employer who is required to keep records, as follows:

—Set up a way for employees to report work-related injuries and illnesses promptly; and
—Inform each employee of how to report work-related injuries and illnesses.

OSHA agrees with commenters that employees must know and understand that they have an affirmative obligation to report injuries and illnesses. Additionally, OSHA believes that many employers already take these actions as a common sense approach to discovering workplace problems, and that the rule will thus, to a large extent, be codifying current industry practice, rather than breaking new ground.

OSHA is convinced that a performance requirement, rather than specific requirements, will achieve this objective effectively, while still giving employers the flexibility they need to tailor their programs to the needs of their workplaces (see, *e.g.*, Exs. 15: 234, 283, 348, 359, 426). The Agency finds that employee awareness and participation in the recordkeeping process is best achieved by such provisions of the final rule as the requirement to extend the posting period for the OSHA 300 summary, the addition of accessibility statements on the OSHA Summary, and requirements designed to facilitate employee access to records.

Many of the specific suggestions made by commenters have not been adopted in the final rule in favor of the more performance-based approach to employee involvement supported by so many commenters. For example, OSHA has decided not to require employers to devise a method of notifying individual employees when a case involving them has been entered on the OSHA 300 Log. An employee notification requirement would be very burdensome and costly, and the potential advantages of an employee notification system have not been shown in the record for this rule. Thus, OSHA is not sure that employee notification would improve the quality of the records enough to justify the

added burdens. Additionally, employees and their representatives have a right to access the records under the final rule, if they wish to review the employer's recording of a given occupational injury or illness case. OSHA believes that the improved recordkeeping that will result from the changes being made to the final rule, the enhanced employee involvement reflected in many of the rule's provisions, and the prohibition against discrimination will all work in concert to achieve the goal envisioned by those commenters who urged OSHA to require employee notification: more and better reporting and recording.

Several of the other suggestions made by participants—such as including employees in accident investigations and involving employees in program evaluation—are beyond the scope of the Part 1904 regulation, which simply requires employers to record and report occupational deaths, injuries and illnesses. OSHA encourages employers and employees to work together to determine how best to communicate the information that workers need in the context of each specific workplace. Moreover, OSHA encourages employers to involve their workers in activities such as accident investigations and the analysis of accident, injury and illness data, as suggested by some commenters, but believes that requiring these activities is beyond the scope of this rule.

OSHA has also included in the final rule, in section 1904.36, a statement that section 11(c) of the OSH Act protects workers from employer retaliation for filing a complaint, reporting an injury or illness, seeking access to records to which they are entitled, or otherwise exercising their rights under the rule. This section of the rule does not impose any new obligations on employers or create new rights for employees that did not previously exist. In view of the evidence that retaliation against employees for reporting injuries is not uncommon and may be ''growing'' (see, *e.g.*, Ex. 58X, p. 214), this section is intended to serve the informational needs of employees who might not otherwise be aware of their rights and to remind employers of their obligation not to discriminate. OSHA concurs with the International Chemical Workers Union, which, while discussing the issue of whether personal identifiers should be used on the Log, stated (Ex. 15: 415), ''We have never heard of [personal identifiers] being an issue for our members, except when management used the reports as an excuse to discipline 'unsafe' workers. The addition of language notifying workers of their rights to 11(c) protection * * * should help alleviate any such concerns.''

Employee access to OSHA injury and illness records

The Part 1904 final rule continues OSHA's long-standing policy of allowing employees and their representatives access to the occupational injury and illness information kept by their employers, with some limitations. However, the final rule includes several changes to improve employees' access to the information, while at the same time implementing several measures to protect the privacy interests of injured and ill employees. Section 1904.35 requires an employer covered by the Part 1904 regulation to provide limited access to the OSHA recordkeeping forms to current and former employees, as well as to two types of employee representatives. The first is a personal representative of an employee or former employee, who is a person that the employee or former employee designates, in writing, as his or her personal representative, or is the legal representative of a deceased or legally incapacitated employee or former employee. The second is an authorized employee representative, which is defined as an authorized collective bargaining agent of one or more employees working at the employer's establishment.

Section 1904.35 accords employees and their representatives three separate access rights. First, it gives any employee, former employee, personal representative, or authorized employee representative the right to a copy of the current OSHA 300 Log, and to any stored OSHA 300 Log(s), for any establishment in which the employee or former employee has worked. The employer must provide one free copy of the OSHA 300 Log(s) by the end of the next business day. The employee, former employee, personal representative or authorized employee representative is not entitled to see, or to obtain a copy of, the confidential list of names and case numbers for privacy cases. Second, any employee, former employee, or personal representative is entitled to one free copy of the OSHA 301 Incident Report describing an injury or illness to that employee by the end of the next business day. Finally, an authorized employee representative is entitled to copies of the right-hand portion of all OSHA 301 forms for the establishment(s) where the agent represents one or more employees under a collective bargaining agreement. The right-hand portion of the 301 form contains the heading ''Tell us about the case,'' and elicits information about how the injury occurred, including the employee's actions just prior to the incident, the materials and tools involved, and how the incident occurred, but does not contain the employee's name. No information other than that on the right-hand portion of the form may be disclosed to an authorized employee representative. The employer must provide the authorized employee representative with one free copy of all the 301 forms for the establishment within 7 calendar days.

Employee privacy is protected in the final rule in paragraphs 1904.29(b)(7) to (10). Paragraph 1904.29(b)(7) requires the employer to enter the words ''privacy case'' on the OSHA 300 Log, in lieu of the employee's name, for recordable privacy concern cases involving the following types of injuries and illnesses: (i) an injury from a needle or sharp object contaminated by another person's blood or other potentially infectious material; (ii) an injury or illness to an intimate body part or to the reproductive system; (iii) an injury or illness resulting from a sexual assault; (iv) a mental illness; (v) an illness involving HIV, hepatitis; or tuberculosis, or (vi) any other illness, if the employee independently and voluntarily requests that his or her name not be entered on the log. Musculoskeletal disorders (MSDs) are not considered privacy concern cases, and thus employers are required to enter the names of employees experiencing these disorders on the log. The employer must keep a separate, confidential list of the case numbers and employee names for privacy cases.

The employer may take additional action in privacy concern cases if warranted. Paragraph 1904.29(b)(9) allows the employer to use discretion in describing the nature of the injury or illness in a privacy concern case, if the employer has a reasonable basis to believe that the injured or ill employee may be identified from the records even though the employee's name has been removed. Only the six types of injuries and illnesses listed in Paragraph 1904.29(b)(7) may be considered privacy concern cases, and thus the additional protection offered by paragraph 1904.29(b)(9) applies only to such cases.

Paragraph 1904.29(b)(10) protects employee privacy if the employer decides voluntarily to disclose the OSHA 300 and 301 forms to persons other than those who have a mandatory right of access under the final rule. The paragraph requires the employer to remove or hide employees' names or

other personally identifying information before disclosing the forms to persons other than government representatives, employees, former employees or authorized representatives, as required by paragraphs 1904.40 and 1904.35, except in three cases. The employer may disclose the forms, complete with personally identifying information, (2) only: (i) to an auditor or consultant hired by the employer to evaluate the safety and health program; (ii) to the extent necessary for processing a claim for workers' compensation or other insurance benefits; or (iii) to a public health authority or law enforcement agency for uses and disclosures for which consent, an authorization, or opportunity to agree or object is not required under section 164.512 of the final rule on Standards for Privacy of Individually Identifiable Health Information, 45 CFR 164.512.

The former rule. The access provisions of the former recordkeeping regulation required employers to provide government representatives, as well as employees, former employees, and their representatives, with access to the OSHA Logs and year-end summaries, including the names of all injured and ill employees. The former regulation permitted only government representatives to have access to the supplemental incident reports (the former Form 101). *Id.* Employees, former employees and their representatives had no right to inspect and copy the incident reports, although employers were permitted to disclose these forms if doing so was included in the terms of a collective bargaining agreement. *Id.*

The proposed rule. The proposed rule would have required employers to provide government representatives, and employees, former employees, and their representatives, with access to the unredacted OSHA Logs and summaries (61 FR 4061). The proposal would have expanded the scope of the former rule's access provisions by requiring employers to make available the incident reports (former OSHA Form 101, renumbered Form 301 in the final rule) to employees, former employees, and their designated representatives. *Id.* At the same time, OSHA did not intend to provide access to the general public. The proposed standard stated: ''OSHA asks for input on possible methodologies for providing easy access to workers while restricting access to the general public'' (61 FR 4048).

The access provisions of the proposed rule attracted considerable comment. Many industry representatives argued that disclosure of information contained in the injury and illness records to employees, former employees and their representatives would violate an injured or ill employee's right, under the Constitution and several statutes, to privacy. On the other hand, a number of commenters emphasized the importance of the information contained in the records to employees and unions in their voluntary efforts to uncover and eliminate workplace safety and health hazards. The following paragraphs discuss privacy and access issues, and their relationship to the recordkeeping rule.

The Privacy Interest of the Injured or Ill Employee

Whether, and to what extent, the U.S. Constitution grants individuals a right of privacy in personal information has not been firmly established. In *Whalen* v. *Roe,* 429 U.S. 589 (1977), the Supreme Court considered whether a New York law creating a central computer record of the names and addresses of persons taking certain dangerous but lawful drugs violated the constitutional privacy interest of those taking the drugs. The Court rejected the claim, primarily because the state statute required that government employees with access keep the information confidential and there was no basis to assume that the requirement would be violated. 429 U.S. at 601, 605–606. Although the decision does not say whether the Constitution affords protection against disclosure of personal information, some language suggests that it does, at least in some circumstances. The Court stated:

> The cases sometimes characterized as protecting ''privacy'' have in fact involved at least two different kinds of interests. One is the individual interest in avoiding disclosure of personal matters, and another is the interest in independence in making certain kinds of decisions. 429 U.S. at 598, 599.
>
> Recognizing that in some circumstances th[e] duty [to avoid unwarranted disclosure of personal matters] arguably has its roots in the Constitution, nevertheless New York's statutory scheme, and its implementing administrative procedures, evidence a proper concern with, and protection of, the individual's interest in privacy. 429 U.S. at 605

A subsequent case, *Nixon* v. *Administrator of General Services,* 433 U.S. 425 (1977), lends further support to the existence of a constitutional right of privacy in personal information. At issue in *Nixon* was a statute that required the former president to turn over both public and private papers to an archivist who would review them and return any personal materials. The Court appeared to acknowledge that Nixon had a Constitutionally protected privacy right in personal information. 433 U.S. at 457. It upheld the statute because of the strong public interest in preserving the documents and because the statute's procedural safeguards made it unlikely that truly private materials would be disclosed to the public.

A number of federal circuit courts of appeals, building on *Whalen* and *Nixon,* have held that individuals possess a qualified constitutional right to confidentiality of personal information, including medical information. See, *e.g.*, *Paul* v. *Verniero,* 170 F.3d 396, 402 (3d Cir. 1999); *Norman-Bloodsay* v. *Lawrence Berkeley Laboratory,* 135 F.3d 1260, 1269 (9th Cir. 1998); *F.E.R.* v. *Valdez,* 58 F.3d 1530, 1535 (10th Cir. 1995); *John Doe* v. *City of New York,* 15 F.3d 264, 267 (2d Cir. 1994); *Fadjo* v. *Coon,* 633 F.2d 1172, 1175 (5th Cir. 1981). See also *Anderson* v. *Romero,* 72 F.3d 518, 522 (7th Cir. 1995) (noting holdings of federal circuits, including seventh circuit, recognizing qualified constitutional right to confidentiality in medical records, but finding it ''not clearly established'' that prison inmate enjoyed such right in 1992).

Of the remaining circuits that have addressed the issue, only the Sixth has squarely rejected a general constitutional right to nondisclosure of personal information. *E.g., J.P.* v. *DeSanti,* 653 F.2d 1080, 1089 (6th Cir. 1981). Two circuits have expressed skepticism as to the existence of such a right. See *American Federation of Government Employees, AFL–CIO* v. *Department of Housing and Urban Development,* 118 F.3d 786, 788 (D.C. Cir. 1987) (expressing ''grave doubt'' whether the Constitution protects against disclosure of personal information); *Borucki* v. *Ryan,* 827 F.2d 836, 845–846 (1st Cir. 1987) (noting lack of concrete guidance by Supreme Court and disagreement among circuits on constitutional right of confidentiality). See also *Ferguson* v. *City of Charleston, S.C.,* 186 F.3d 469, 483 (4th Cir.1999) (declining to decide whether individuals possess a general constitutional right to privacy, noting circuit conflict).

Where the right to privacy is recognized, protection extends to information that the individual would reasonably expect to remain confidential. *Fraternal Order of Police Lodge No. 5* v. *City of Philadelphia,* 812 F.2d 105, 112 (3d Cir. 1987); *Mangels* v. *Pena,* 789 F.2d 836, 839 (10th Cir. 1986). ''The more intimate or personal the information, the more justified is the expectation that it will not be subject to public scrutiny.'' *Fraternal Order of Police,* 812 F.2d at 105. Thus, information about the state of a person's health, including his or her medical

treatment, prescription drug use, HIV status and related matters, is entitled to privacy protection. See *Paul* v. *Verniero,* 170 F.3d at 401–402 (collecting cases). See also *Doe* v. *City of New York,* 15 F.3d at 267 (''[T]here are few matters that are quite so personal as the status of one's health, and few matters the dissemination of which one would prefer to maintain greater control over.'')

The right to privacy is not limited only to medical records. Other types of records containing medical information are also covered. See, *e.g.*, *Whalen,* (computer tapes containing prescription drug information); *Fraternal Order of Police,* 812 F.2d at 112 (police questionnaire eliciting information about employee's physical and mental condition); *Doe* v. *SEPTA,* 72 F.3d 1133 (3d Cir. 1995) (utilization report listing prescription drugs dispensed to employees under employer health plan). Moreover, personal financial data and other types of private information may be subject to privacy protection in certain cases. See *Nixon* v. *Administrator of General Services,* 433 U.S. 425, 455 (1977) (personal matters, including personal finances, reflected in presidential papers); *Paul* v. *Verniero,* 170 F.3d at 404 (home address of sex offender subject to disclosure under ''Megan's Law''); *Fadjo* v. *Coon,* 633 F.2d at 1175 (private details contained in subpoenaed testimony).

A finding that information is entitled to privacy protection is only the first step in determining whether a disclosure requirement is valid. A balancing test must be applied, which weighs the individual's interest in confidentiality against the public interest in disclosure. *Fraternal Order of Police,* 812 F.2d at 113. In evaluating the government's interest, at least two factors must be considered; the purpose to be served by disclosure of personal information to individuals authorized by law to receive it, and the adverse effect of unauthorized public disclosure of such information. *Id.* at 117, 118. *Accord, Barry* v. *City of New York,* 712 F.2d 1554, 1561–5162 (2d Cir. 1983). Thus, the fact that disclosure of highly personal information to parties who have need for it serves an important public interest is not sufficient justification for a disclosure requirement in the absence of adequate safeguards against broader public access. *Fraternal Order of Police,* 812 F.2d at 118 (''It would be incompatible with the concept of privacy to permit protected information and material to be publicly disclosed. The fact that protected information must be disclosed to a party who has need for it * * * does not strip the information of its protection against disclosure to those who have no similar need.'')

Balancing the Interests of Privacy and Access

OSHA historically has recognized that the Log and Incident Report (Forms 300 and 301, respectively) may contain information of a sufficiently intimate and personal nature that a reasonable person would wish it to remain confidential. In its 1978 records access regulation (29 CFR 1910.1020), OSHA addressed the privacy implications of its decision to grant employee access to the Log. The agency noted that while Log entries are intended to be brief, they may contain medical information, including diagnoses of specific illnesses, and that disclosure to other employees, former employees or their representatives raised a sensitive privacy issue. 43 FR 31327 (1978). However, OSHA concluded that disclosure of the Log to current and former employees and their representatives benefits these employees generally by increasing their awareness and understanding of the health and safety hazards to which they are, or have been, exposed. OSHA found that this knowledge ''will help employees to protect themselves from future occurrences,'' and that ''[i]n such cases, the right of privacy must be tempered by the obvious exigencies of informing employees about the effects of workplace hazards.'' *Id.* at 31327, 31328.

The proposed rule would have expanded the right of access of employees, former employees, and their designated representatives beyond the Log to include the Incident Report (Form 301) (61 FR 4061). OSHA discussed the potentially conflicting interests involved, and explained its preliminary balancing of these interests, as follows:

> OSHA's historical practice of allowing employee access to all of the information on the log permits employees and their designated representatives to be totally informed about the employer's recordkeeping practices, and the occupational injuries and illnesses recorded in the workplace. However, this total accessibility may infringe on an individual employee's privacy interest. At the same time, the need to access individual's Incident Records to adequately evaluate the safety and health environment of the establishment has been expressed.
>
> These two interests—the privacy interests of the individual employee versus the interest in access to health and safety information concerning one's own workplace—are potentially at odds with one another. For injury and illness recordkeeping purposes, OSHA has taken the position that an employee's interest in access to health and safety information on the OSHA forms concerning one's own workplace carries greater weight than an individual's right to privacy. More complete access to the detailed injury and illness records has the potential for increasing employee involvement in workplace safety and health programs and therefore has the potential for improving working conditions. Analysis of injury and illness data provides a wealth of information for injury and illness prevention programs. Analysis by workers, in addition to analyses by the employer, lead to the potential of developing methods to diminish workplace hazards through additional or different perspectives (61 FR 4048).

The proposal asked for comment on alternatives that would preserve broad access rights while protecting fundamental privacy interests, including requiring omission of personal identifying information for certain specific injury and illness cases recorded on the Log, and restricting non-government access to the Incident Reports to that portion of the Form 301 that does not contain personal information. *Ibid.*

OSHA continues to believe that granting employees a broad right of access to injury and illness records serves important public interests. There is persuasive evidence that access by employees and their representatives to the Log and the Incident Report serves as a useful check on the accuracy of the employer's recordkeeping and promotes greater employee involvement in prevention programs that contribute to safer, more healthful workplaces. For example, the Building and Construction Trades Department, AFL–CIO stated that:

> In the main, the name of the employee is critically important to understanding and verifying recordable cases. It is often necessary to speak with the employee to explore the conditions that lead to the injury or illness, and this is impossible without employee names. In addition, employees and unions play an important role in assuring the proper administration of the recordkeeping rule, and they cannot audit an employer's recordkeeping performance without having access to employee names, which are necessary to verify that all properly recordable cases are actually on the log, and to verify that recorded cases are properly classified. (Ex. 15: 394, p. 35)

Similarly, the American Federation of State, County and Municipal Employees, AFL–CIO stated that ''[w]hen employees and their representatives have complete access to the detailed injury and illness records, employee involvement in workplace safety and health programs increases. Worker representatives use the data on the forms to assist in the identification of specific hazards, as well as other

factors affecting workplace safety'' (Ex.15: 362, p. 7).

The United Auto Workers (Ex. 15: 438) argued that the OSHA 301 incident reports are as valuable as the log is in aiding voluntary enforcement efforts. The UAW stated:

> The OSHA 101 (proposed 301) form is an available data source on circumstances of an injury or illness. The collected data contains information for prevention, and also indicates the effectiveness of management's health and safety program. The information on the OSHA [301] relevant to hazard identification and control should be made available to employee representatives on the same basis as they are made available to OSHA compliance officers. Personal data on treatment details, physician's name, personal information on employee can be recorded on the ''other'' side of the form and blanked out.

The Laborers' Health and Safety Fund (Ex. 15: 310) also emphasized the practical value of the information contained in the Form 301:

> We wholeheartedly support the specific language in the proposed rule allowing designated representatives access to the OSHA 300 and 301 forms. In a project we administered to determine the major causes of serious injuries and illnesses in road construction under a Federal Highway Administration grant, several employers would not allow access to even information from the injured person's 101 workers compensation equivalent form, because the form contained other information such as the employee's age and salary. The event information contained in the 301 form is critical in determining the hazards and possible preventive measures.

Other commenters also supported the proposal's approach of broadening employee access to records (see, *e.g.* Exs. 24; 36; 15: 350, 380, 418).

Recognition of the important purpose served by granting access to injury and illness records does not end the analysis. The public interest that is served when information contained in the records is used to promote safety and health must be balanced against the possible harm that would result from the misuse of private information. There are two ways in which harm could occur. First, the information could be used for unauthorized purposes, such as to harass or embarrass employees. Second, employees and their representatives with access to records could, deliberately or inadvertently, disclose private information to others who have no need for it.

Several commenters indicated concern about the unauthorized disclosure of private material contained in the injury and illness records. The joint comments filed by the National Broiler Council and the National Turkey Council express the view shared by many employers:

> There is universal support among employees and employers for the communication of information about workplace illnesses and injuries. It also seems apparent that there is universal opposition to the communication of personal information about individuals involved in those incidents. There are many circumstances in the workplace where employees have no desire for fellow employees to know the extent, description, or type of injury or illness they have incurred. The reasons for an employee's concern about his or her personal privacy may vary but almost always find their foundation in very strong and personal emotions. One example that clearly illustrates this point would be the employee who has experienced an exposure incident under the bloodborne pathogens standard. Most people would not want it to be known that they may have been exposed to HIV, let alone if they tested positive for HIV. * * * In addition to the concerns about how this information could be used by other individuals, employers also have very serious concerns about the misuse of this information by individuals or organizations for purposes in no way related to the issue of workplace health and safety (Ex. 15: 193, pp. 4–5).

A number of commenters argued that granting access to the Log and Incident Report to employees, former employees and their representatives will deter employees from reporting their injuries and illnesses, especially in cases involving exposure to bloodborne pathogens and injuries and illnesses involving reproductive organs (see, *e.g.*, Exs. 15–185, 15–193, 15–238, 15–239, 15–305). A representative of the Middlesex Convalescent Center wrote:

> [R]equiring employers to disclose personal identifiers (which include name and occupation) will result in *fewer* people reporting injuries and illnesses because employees will feel shame or embarrassment for being involved in an accident. * * * Additionally, employees who do not want co-workers to know their physical handicaps and other personal business will choose not to report accidents, including those in which the employee is not at fault (Ex. 15: 23 (emphasis in original)).

There exist at present no mechanisms to protect against unwarranted disclosure of private information contained in OSHA records. While Agency policy is that employees and their representatives with access to records should treat the information contained therein as confidential except as necessary to further the purposes of the Act, the Secretary lacks statutory authority to enforce such a policy against employees and representatives (*e.g.* 29 U.S.C. §§ 658, 659) (Act's enforcement mechanisms directed solely at employers). Nor are there present here other types of safeguards that have been held to be adequate to protect against misuse of private material. See *Whalen,* 589 U.S. at 605 (''The right to collect and use [private] data for public purposes is typically accompanied by a concomitant statutory or regulatory duty to avoid unwarranted disclosures.'') See also *Fraternal Order of Police,* 812 F.2d at 118 (appropriate safeguards could include statutory sanctions for unauthorized disclosures, security provisions to prevent mishandling of files, coupled with express regulatory prohibition on disclosure, or procedures such as storage of private material in locked cabinets with automatic removal and destruction within six months); *In re Search Warrant (Sealed),* 810 F.2d 67, 72 (3d Cir. 1987) (district court order that medical records and related information be kept confidential except as disclosure was reasonably required in connection with criminal investigation).

The degree of harm that could result from unauthorized use or disclosure of information on the Log and Incident Report varies depending upon the nature and sensitivity of the injury or illness involved. An employee might reasonably have little to fear from disclosure of a garden-variety injury or illness of the kind that one might sustain in everyday life. Cf. *Wilson* v. *Pennsylvania State Police Department,* 1999 WL 179692 (E.D.Pa) (vision-related information not as intimate as other types of medical information, and less likely to result in harm if disclosed to the public). However, there is a much greater risk that social stigma, harassment and discrimination could result from public knowledge that one has, or may have, AIDS, has been the victim of a sexual assault, or has suffered an injury to a reproductive organ or other intimate body part. See, *e.g. Doe* v. *SEPTA,* 712 F.2d at 1140 (AIDS); *New Jersey Bell Telephone Co.* v. *NLRB,* 720 F.2d 789, 790 (3d Cir. 1983) (reasons given by employees for absence or tardiness included colitis, insertion of urethral tubes, vaginal infections, scalded rectal areas, and heart problems).

OSHA has concluded that the disclosure of occupational injury and illness records to employees and their representatives serves important public policy interests. These interests support a requirement for access by employees and their representatives to personally identifiable information for all but a limited number of cases recorded on the Log, and to all information on the right-hand side of the Form 301. However, OSHA also concludes that prior Agency access policies may not have given

adequate consideration to the harm which could result from disclosure of intimate medical information. In the absence of effective safeguards against unwarranted use or disclosure of private information in the injury and illness records, confidentiality must be preserved for particularly sensitive cases. These ''privacy concern cases'' listed in paragraph 1904.29 (b)(7) of the final rule involve diseases, such as AIDS and hepatitis, other illnesses if the employee voluntarily requests confidentiality, as well as certain types of injuries, the disclosure of which could be particularly damaging or embarrassing to the affected employee. MSDs are not included in privacy concern cases because OSHA's ergonomics rule independently provides for access by employees and their representatives to the names of workers who report work-related MSDs. (See 29 CFR 1910.900(v)(1) and (2.)

The record supports this approach. For example, API recommended that OSHA protect employee confidentiality for cases involving HIV, fertility problems, bloodborne pathogens, seroconversions, and impotence (Ex. 15: 375). OSHA agrees that employee confidentiality should be protected in these and similar cases. Therefore, the final rule requires that the employer withhold the employee's name from the OSHA 300 Log for each ''privacy concern case,'' and maintain a separate confidential list of employee names and case numbers. In all other respects, the final rule ensures full access to the OSHA Log by employees, former employees, personal representatives and authorized employee representatives.

Protections Against Broad Public Access

In the proposal, OHSA noted that the access requirements were intended as a tool for employees and their representatives to affect safety and health conditions at the workplace, not as a mechanism for broad public disclosure of injury and illness information. (61 FR 4048.) A number of commenters suggested that OSHA should include specific language in the final rule protecting employee confidentiality whenever injury and illness data are disclosed for other than safety or health purposes, or to persons other than those who have a legitimate need to know. Dow argued that:

> OSHA should allow an employer to develop a system that will protect personal identifiers and other non-safety or health related information. Further, such information should only be available for the specific use by an OSHA inspector who is reviewing an employer's logs during an inspection, medical personnel, the employer's incident investigation designated officials, and the individual's supervisor. Outside of these individuals, access should be granted only after written authorization from the injured or ill employee has been obtained. This approach would allow those individuals who have a legitimate ''need to know'' limited access to the information (Ex.. 15: 335).

Other commenters suggested requiring that employee names be shielded if the forms are disclosed to third parties (see, *e.g.*, Exs. 15: 374, 375).

OSHA agrees that confidentiality of injury and illness records should be maintained except for those persons with a legitimate need to know the information. This is a logical extension of the agency's position that a balancing test is appropriate in determining the scope of access to be granted employees and their representatives. Under this test, ''the fact that protected information must be disclosed to a party who has need for it* * * does not strip the information of its protection against disclosure to those who have no similar need.'' *Fraternal Order of Police,* 812 F2d at 118.

OSHA has determined that employees, former employees and authorized employee representatives have a need for the information that justifies their access to records, including employee names, for all except privacy concern cases. While the possibility exists that employees and their representatives with access to the records could disclose the information to the general public, OSHA does not believe that this risk is sufficient to justify restrictions on the use of the records by persons granted access under sections 1904.40 and 1904.35. As discussed in the following section, strong policy and legal considerations militate against placing restrictions on employees' and employee representatives' use of the injury and illness information.

There is also a concern that employers may voluntarily grant access to OSHA records to persons outside their organization, who do not need the information for safety and health purposes. To protect employee confidentiality in these circumstances, paragraph 1904.29(b)(10) requires employers generally to remove or shield employee names and other personally identifying information when they disclose the OSHA forms to persons other than government representatives, employees, former employees or authorized employee representatives. Employers remain free to disclose unredacted records for purposes of evaluating a safety and health program or safety and health conditions at the workplace, processing a claim for workers' compensation or insurance benefits, or carrying out the public health or law enforcement functions described in section 164.512 of the final rule on Standards for Privacy of Individually Identifiable Health Information.

OSHA believes that this provision protects employee privacy to a reasonable degree consistent with the legitimate business needs of employers and sound public policy considerations. The record does not demonstrate that routine access by the general public to personally identifiable injury and illness data is necessary or useful. Indeed, several prominent industry representatives stated that the OSHA log should not be made available to the general public. See Ex. 335 (Dow); Ex. 15–375 (API). Furthermore, employers are always free to seek authorization from employees to disclose their names in particular cases. Thus, employers retain a degree of flexibility to tailor their voluntary disclosure policies to meet exigent circumstances.

Misuse of the Records by Employees and Their Representatives

Several commenters were concerned about inappropriate uses of the records once they are released to employees (see, *e.g.*, Exs. 15: 9, 39, 102, 185, 193, 201, 304, 305, 317, 321, 330, 341, 346, 359, 363, 375, 389, 397, 412, 413, 423, 424, 431). The American Petroleum Institute stated: ''API has concerns about potentials for uncontrolled and unscrupulous use of these data for purposes unrelated to safety and health—uses such as for plaintiff-lawyer ''fishing expeditions'', in union organizing attempts, to create adverse publicity as contracts expire, or to foster other special interests'' (Ex. 15: 375). Several commenters stated that information requests could be used as a harassment by unions (see, *e.g.*, Exs. 15: 9, 201, 317, 423, 424), and the Caterpillar Corporation (Ex. 15: 201) related its labor management difficulties during a recent strike (Ex. 15: 201). The American Crystal Sugar Company (Ex. 15 363) expressed concern that ''there have been instances where an employee is paid a finder's fee to identify possible cases for personal injury lawyers.'' A few commenters suggested methods to solve these potential misuse problems, including a requirement for all information requests to be made in writing (see, *e.g.*, Exs. 15: 163, 235, 281, 397). Two commenters suggested requirements for the employee or employee representative to sign a pledge not to misuse the information (Exs. 15: 359, 389). For example, the Waste

Management, Inc. Company suggested that ''OSHA should require the individual(s) obtaining a copy of the log or record to certify that the information will be maintained in confidence and will not be released to a third party under any circumstances under penalty of law. OSHA shall also promulgate severe penalties for violation'' (Ex. 15: 389).

While there may be instances where employees share the data with third parties who normally would not be allowed to access the data directly, the final rule contains no enforceable restrictions on use by employees or their representatives. Employees and their representatives might reasonably fear that they could be found personally liable for violations of such restrictions. This would have a chilling effect on employees' willingness to use the records for safety and health purposes, since few employees would voluntarily risk such liability. Moreover, despite the concerns of commenters about abuse problems, OSHA has not noted any significant problems of this type in the past. This suggests that, if such problems exist, they are infrequent. In addition, as noted in the privacy discussion above, a prohibition on the use of the data by employees or their representatives is beyond the scope of OSHA's enforcement authority. For these reasons, the employer may not require an employee, former employee or designated employee representative to agree to limit the use of the records as a condition for viewing or obtaining copies of records.

OSHA has added a statement to the Log and Incident Report forms indicating that these records contain information related to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is used for occupational safety and health purposes. This statement is intended to inform employees and their representatives of the potentially sensitive nature of the information in the OSHA records and to encourage them to maintain employee confidentiality if compatible with the safety and health uses of the information. Encouraging parties with access to the forms to keep the information confidential where possible is reasonable and should not discourage the use of the information for safety and health purposes. OSHA stresses, however, that the statement does not reflect a regulatory requirement limiting the use of records by those with access under sections 1904.35 and 1904.40.

The Records Access Requirement and the ADA

Several commenters alleged that a requirement that individually identifiable injury and illness records be disclosed to employees and union representatives would conflict with the confidentiality provisions of the Americans With Disabilities Act, 42 U.S.C. §§ 12112 (d)(3)(B), (d)(4)(C) (1994 ed. and Supp. III) (ADA) (see, *e.g.*, Exs. 15: 64, 290, 304, 315, 397).

Section 12112(d)(3)(B) of the ADA permits an employer to require a job applicant to submit to a medical examination after an offer of employment has been made but before commencement of employment duties, provided that medical information obtained from the examination is kept in a confidential medical file and not disclosed except as necessary to inform supervisors, first aid and safety personnel, and government officials investigating compliance with the ADA. Section 12112(d)(4)(C) requires that the same confidentiality protection be accorded health information obtained from a voluntary medical examination that is part of an employee health program.

By its terms, the ADA requires confidentiality for information obtained from medical examinations given to prospective employees, and from medical examinations given as part of a voluntary employee health program. The OSHA injury and illness records are not derived from pre-employment or voluntary health programs. The information in the OSHA injury and illness records is similar to that found in workers' compensation forms, and may be obtained by employers by the same process used to record needed information for workers' compensation and insurance purposes. The Equal Employment Opportunity Commission (EEOC) recognizes a partial exception to the ADA's strict confidentiality requirements for medical information regarding an employee's occupational injury or workers' compensation claim. See *EEOC Enforcement Guidance: Workers' Compensation and the ADA*, 5 (September 3, 1996). Therefore, it is not clear that the ADA applies to the OSHA injury and illness records.

Even assuming that the OSHA injury and illness records fall within the literal scope of the ADA's confidentiality provisions, it does not follow that a conflict arises. The ADA states that ''nothing in this Act shall be construed to invalidate or limit the remedies, rights, and procedures of any Federal law. * * *'' 29 U.S.C. 12201(b). In enacting the ADA, Congress was aware that other federal standards imposed requirements for testing an employee's health, and for disseminating information about an employee's medical condition or history, determined to be necessary to preserve the health and safety of employees and the public. See H.R. Rep. No. 101–485 pt. 2, 101st Cong., 2d Sess. 74–75 (1990), *reprinted in* 1990 U.S.C.C.A.N. 356, 357 (noting, *e.g.* medical surveillance requirements of standards promulgated under OSH Act and Federal Mine Safety and Health Act, and stating ''[t]he Committee does not intend for [the ADA] to override any medical standard or requirement established by Federal * * * law * * * that is job-related and consistent with business necessity''). See also 29 CFR part 1630 App. p. 356. The ADA recognizes the primacy of federal safety and health regulations; therefore such regulations, including mandatory OSHA recordkeeping requirements, pose no conflict with the ADA. Cf. *Albertsons, Inc.* v. *Kirkingburg,* 527 U.S. 555, (1999) (''When Congress enacted the ADA, it recognized that federal safety and health rules would limit application of the ADA as a matter of law.'')

The EEOC, the agency responsible for administering the ADA, has recognized both in the implementing regulations at 29 CFR part 1630, and in interpretive guidelines, that the ADA yields to the requirements of other federal safety and health standards. The implementing regulation codified at 29 CFR 1630.15(e) explicitly states that an employer's compliance with another federal law or regulation may be a defense to a charge of violating the the ADA:

> (e) Conflict with other Federal laws. It may be a defense to a charge of discrimination under this part that a challenged action is required or necessitated by another Federal law or regulation, or that another Federal law or regulation prohibits an action (including the provision of a particular reasonable accommodation) that would otherwise be required by this part.

Interpretive guidance provided by the EEOC further underscores this point. The 1992 Technical Assistance Manual on Title I of the ADA states as follows:

> *4.6 Health and Safety Requirements of Other Federal or State Laws*
>
> The ADA recognizes employers' obligations to comply with requirements of other laws that establish health and safety standards. However, the [ADA] gives greater weight to Federal than to state or local law.
>
> 1. Federal Laws and Regulations
>
> The ADA does not override health and safety requirements established under other Federal laws. If a standard is required by another Federal law, an employer must

comply with it and does not have to show that the standard is job related and consistent with business necessity (emphasis added).

U.S. Equal Employment Opportunity Commission, *A Technical Assistance Manual on the Employment Provisions (Title I) of the Americans With Disabilities Act,* IV–16 (1992) (Technical Assistance Manual). The Technical Assistance Manual also states that, while medical-related information about employees must generally be kept confidential, an exception applies where ''[o]ther Federal laws and regulations * * * require disclosure of relevant medical information.'' Assistance Manual at VI–12. See also Assistance Manual at VI–14–15 (actions taken by employers to comply with requirements imposed under the OSH Act are job related and consistent with business necessity). For these reasons, OSHA does not believe that the mandatory employee access provisions of the final recordkeeping rule conflict with the provisions of the ADA.

Times Allowed To Provide Records

In its proposal, OSHA would have required the employer to allow the employee to view the 300 Log and the Form 301 records by the end of the next business day and provide copies within seven calendar days. An employer would have been required to provide access to the 301 forms for all injuries and illnesses ''in a reasonable time'' (61 FR 4061). Several commenters agreed with OSHA's proposed times for providing copies of the records to employees and their representatives (see, *e.g.*, Exs. 15: 213, 277, 359). For example, Consolidated Edison (Ex. 15: 213) stated that ''[t]he time limits in the proposal are acceptable but [Con Ed] recommends that a time limit of seven days be included at [proposed] paragraph 1904.11(b)(5) [which addressed the copying of 301 forms] rather than the vague ''reasonable time'' included in the text.''

A number of commenters disagreed with OSHA's proposed times for providing copies of the records (see, *e.g.*, Exs. 15: 195, 201, 213, 218, 226, 235, 326, 347, 369, 370, 389, 409, 423, 425, 440). These commenters suggested a variety of times, including four hours (Ex. 15: 369), 24 hours (Ex. 15: 425), two workdays (Ex. 15: 226), five working days (Ex. 15: 235), within seven calendar days or one week (Ex. 15: 195, 370), 15 days to match the requirements of the OSHA medical records access rule (Ex. 15: 218, 347, 409, 423), and 21 days (Ex. 15: 389). The International Brotherhood of Teamsters (Ex. 15: 369) suggested that ''[e]mployees and their designated representatives be provided with the same access rule as proposed for governmental officials, RE: obtain copies of logs four hours after the request.''

The Tennessee Valley Authority (TVA) argued that ''[a]ll requests for records should be made in writing and the information provided to the authorized requester within five working days. This provides the documentation for who received the information and reduces the burden on the employer'' (Ex. 15: 235). Bell Atlantic Network Services, Inc. (Ex. 15: 218) recommended that ''OSHA should simplify the very confusing and differing ''access'' and ''copies'' schedule to an uniform 15 working days as is the requirement in 29 CFR 1910.20, Access to Employee Exposure and Medical Records.''

In addition, the Caterpillar Company (Ex. 15: 201) recommended that the final rule should not establish time frames at all, stating that ''The time limit of providing access by the close of business on the next scheduled workday is unnecessarily restrictive. Noncompliance situations could be generated by simple work schedule conflicts or other minor difficulties. The access period should be stated as a reasonable time period allowing employees and employers adequate flexibility.''

Under the final rule, an employer must provide a copy of the 300 Log to an employee, former employee, personal representative or authorized employee representative on the business day following the day on which an oral or written request for records is received. Likewise, when an employee, former employee or personal representative asks for copies of the 301 form for an injury or illness to that employee, the employer must provide a copy by the end of the next business day. OSHA finds that these are appropriate time frames for supplying a copy of the existing forms, which in the case of the Form 301 is a single page. The average 300 Log is also only one page, although employers who have a larger number of occupational injuries and illnesses will have more than one page.

The final rule allows the employer seven business days to provide copies of the OSHA 301 forms for all occupational injuries and illnesses that occur at the establishment. Several commenters stated that there is additional burden for these large requests (see, *e.g.*, Exs. 15: 172, 260, 262, 265, 294, 297, 401). For example, the Boeing Corporation stated that ''[s]ince Boeing is a large employer with several thousand employees at several sites, (up to 30,000 at one site), the administrative burden could be immense, particularly, if large numbers of records are requested by several employees. For example, if 100 employees requested ten thousand 301 forms, one million records would have to be available. This requirement is simply not administratively realistic.'' OSHA agrees that, because these records may involve more copying, the employer needs more time to produce copies of the 301 forms. In addition, as stated in the final rule, the employer may not provide the authorized employee representative with the information on the left side of the 301 form, so the employer needs additional time to redact this information. Because the final rule only provides a right of access to an authorized employee representative (authorized collective bargaining agent), the number of requests should not exceed the number of unions representing employees at the establishment. Thus, the multiple request problem envisioned by Boeing should not surface. In addition, OSHA expects that, in large plants such as the one described by Boeing, the authorized employee representatives will ask for the data on a periodic basis, either monthly or quarterly, so the data requested at one time will be limited. In addition, the employer must provide only one free copy. If additional copies are requested, the employer may charge for the copies.

Charging Employees for Copies of the OSHA Records

The proposal also required the employer to provide copies without cost, or provide access to copying facilities without charge, or allow the employee or representative to take the records off site to make copies (61 FR 4061). Linda Ballas (Ex. 15: 31) commented that the copies should be provided at no cost to the employee. Several commenters stated that employees who access the records should pay for them (see, *e.g.*, Exs. 15: 151, 152, 179, 180, 201, 226, 317, 397, 424). Atlantic Marine, Inc. stated: ''Providing copies of records without cost to individuals may produce an undue administrative and financial burden for some employers. Although there is merit to providing information access to employees, the charging of a fee not to exceed the actual cost for duplicating the documents may deter unnecessary or frivolous requests'' (Ex. 15: 151). The United Parcel Service Company (Ex. 15: 424) stated that:

[i]f expanded access to safety and health records is afforded, certainly such access should not be at the employer's cost. This is an unfair burden on the employer, and will

encourage improper, harassing requests. These risks are not alleviated by the alternative of permitting the employer to give its records to the requesting party to copy, Proposed § 1904.11(b)(3)(iii), 61 Fed. Reg. at 4061, since employers often will be reluctant to entrust their only original copies to a current or former employee. (Ex. 15: 424)

In the final rule, OSHA has implemented the proposed provision requiring employers to provide copies free of charge to employees who ask for the records. The costs of providing copies is a minimal expense, and employees are more likely to access the data if it is without cost. In addition, allowing the employer to charge for copies of the OSHA records would only serve to delay production of the records. Providing free copies for employees thus helps meet one of the major goals of this rulemaking; to improve employee involvement. However, OSHA agrees that there are some circumstances where employers should have the option of charging for records. After receiving an initial, free copy of requested records, an employee, former employee, or designated representative may be charged a reasonable search and copying fee for duplicate copies of the records. However, no fee may be charged for an update of a previously requested record.

Section 1904.37 State Recordkeeping Regulations

Section 1904.37 addresses the consistency of the recordkeeping and reporting requirements between Federal OSHA and those States where occupational safety and health enforcement is provided by an OSHA-approved State Plan. Currently, in 21 States and 2 territories, the State government has been granted authority to operate a State OSHA Plan covering both the private and public (State and local government) sectors under section 18 of the OSH Act (see the State Plan section of this preamble for a listing of these States). Two additional States currently operate programs limited in scope to State and local government employees only. State Plans, once approved, operate under authority of State law and provide programs of standards, regulations and enforcement which must be ''at least as effective'' as the Federal program. (State Plans must extend their coverage to State and local government employees, workers not otherwise covered by Federal OSHA regulations.) Section 1904.37 of the final rule describes what State Plan recordkeeping requirements must be identical to the Federal requirements, which State regulations may be different, and provides cross references to the State Plan regulations codified in Section 1902.3(k), 1952.4, and 1956.10(i). The provisions of Subpart A of 29 CFR part 1952 specify the regulatory discretion of the State Plans in general, and section 1952.4 spells out the regulatory discretion of the State Plans specifically for the recordkeeping regulation.

In the final rule, OSHA has rewritten the text of the corresponding proposed section and moved it into Subpart D of the final rule. Under Section 18 of the OSH Act, a State Plan must require employers in the State to make reports to the Secretary in the same manner and to the same extent as if the Plan were not in effect. Final section 1904.37 makes clear that States with approved State Plans must promulgate new regulations that are substantially identical to the final Federal rule. State Plans must have recording and reporting regulations that impose identical requirements for the recordability of occupational injuries and illnesses and the manner in which they are entered. These requirements must be the same for employers in all the States, whether under Federal or State Plan jurisdiction, and for State and local government employers covered only through State Plans, to ensure that the occupational injury and illness data for the entire nation are uniform and consistent so that statistics that allow comparisons between the States and between employers located in different States are created.

For all of the other requirements of the Part 1904 regulations, the regulations adopted by the State Plans may be more stringent than or supplemental to the Federal regulations, pursuant to paragraph 1952.4(b). This means that the States' recording and reporting regulations could differ in several ways from their Federal Part 1904 counterparts. For example, a State Plan could require employers to keep records for the State, even though those employers are within an industry exempted by the Federal rule. A State Plan could also require employers to keep additional supplementary injury and illness information, require employers to report fatality and multiple hospitalization incidents within a shorter timeframe than Federal OSHA does, require other types of incidents to be reported as they occur, or impose other requirements. While a State Plan must assure that all employee participation and access rights are assured, the State may provide broader access to records by employees and their representatives. However, because of the unique nature of the national recordkeeping program, States must secure Federal OSHA approval for these enhancements.

The final rule eliminates paragraph (b) of section 1904.14 of the proposed rule. Proposed paragraph (b) stated that records maintained under State Plan rules would be considered to be in compliance with the Federal rule. OSHA has eliminated paragraph (b) as unnecessary because it is redundant to state that the records kept under State law will be acceptable; since State regulations must be identical to, or more stringent than the Federal regulations, compliance by private sector employers with approved State laws would by definition constitute compliance with the Federal regulations. Paragraph (c), which deals with public sector recording and reporting requirements in both comprehensive State Plans (those covering both the private and public sector employees) and those which are limited to the public sector (State and local government), has been reworded and moved to 1904.37(b)(3).

Because Federal OSHA does not provide coverage to State and local government employees, the State-Plan States may grant State recordkeeping variances to the State and local governments under their jurisdiction. However, the State must obtain concurrence from Federal OSHA prior to issuing any such variances. In addition, the State-Plan States may not grant variances to any other employers and must recognize all 1904 variances granted by Federal OSHA. These steps are necessary to ensure that the injury and illness data requirements are consistent from State to State.

Rulemaking comments on this issue were unanimous in supporting identical State and Federal regulations for recordkeeping. Multi-State employers and their representatives, such as US West, Lucent Technologies, AT&T, and the National Association of Manufacturers, thought that identical State regulations would simplify and reduce their recordkeeping burdens (see, *e.g.*, Exs. 15: 194, 272, 303, 305, 346, 348, 358, 375).

OSHA understands the advantages to multi-State businesses of following identical OSHA rules in both Federal and State Plan jurisdictions, but also recognizes the value of allowing the States to have different rules to meet the needs of each State, as well as the States' right to impose different rules as long as the State rule is at least as effective as the Federal rule. Accordingly, the Part 1904 rules impose identical requirements where they are needed to create consistent injury and illness statistics for the nation and allows the States to impose

supplemental or more stringent requirements where doing so will not interfere with the maintenance of comprehensive and uniform national statistics on workplace fatalities, injuries and illnesses.

Section 1904.38 Variances From the Recordkeeping Rule

Section 1904.38 of the final rule explains the procedures employers must follow in those rare instances where they request that OSHA grant them a variance or exception to the recordkeeping rules in Part 1904. The rule contains these procedures to allow an employer who wishes to maintain records in a manner that is different from the approach required by the rules in Part 1904 to petition the Assistant Secretary. Section 1904.8 allows the employer to apply to the Assistant Secretary for OSHA and request a Part 1904 variance if he or she can show that the alternative recordkeeping system: (1) Collects the same information as this Part requires; (2) Meets the purposes of the Act; and (3) Does not interfere with the administration of the Act.

The variance petition must include several items, namely the employer's name and address; a list of the State(s) where the variance would be used; the addresses of the business establishments involved; a description of why the employer is seeking a variance; a description of the different recordkeeping procedures the employer is proposing to use; a description of how the employer's proposed procedures will collect the same information as would be collected by the Part 1904 requirements and achieve the purpose of the Act; and a statement that the employer has informed its employees of the petition by giving them or their authorized representative a copy of the petition and by posting a statement summarizing the petition in the same way notices are posted under paragraph 1903.2(a).

The final rule the describes how the Assistant Secretary will handle the variance petition by taking the following steps:

—The Assistant Secretary will offer employees and their authorized representatives an opportunity to comment on the variance petition. The employees and their authorized representatives will be allowed to submit written data, views, and arguments about the petition.

—The Assistant Secretary may allow the public to comment on the variance petition by publishing the petition in the **Federal Register**. If the petition is published, the notice will establish a public comment period and may include a schedule for a public meeting on the petition.

—After reviewing the variance petition and any comments from employees and the public, the Assistant Secretary will decide whether or not the proposed recordkeeping procedures will meet the purposes of the Act, will not otherwise interfere with the Act, and will provide the same information as the Part 1904 regulations provide. If the procedures meet these criteria, the Assistant Secretary may grant the variance subject to such conditions as he or she finds appropriate.

—If the Assistant Secretary grants the variance petition, OSHA will publish a notice in the **Federal Register** to announce the variance. The notice will include the practices the variance allows, any conditions that apply, and the reasons for allowing the variance.

The final rule makes clear that the employer may not use the proposed recordkeeping procedures while the Assistant Secretary is processing the variance petition and must wait until the variance is approved. The rule also provides that, if the Assistant Secretary denies the petition, the employer will receive notice of the denial within a reasonable time and establishes that a variance petition has no effect on the citation and penalty for a citation that has been previously issued by OSHA and that the Assistant Secretary may elect not to review a variance petition if it includes an element which has been cited and the citation is still under review by a court, an Administrative Law Judge (ALJ), or the OSH Review Commission.

The final rule also states that the Assistant Secretary may revoke a variance at a later date if the Assistant Secretary has good cause to do so, and that the procedures for revoking a variance will follow the same process as OSHA uses for reviewing variance petitions. Except in cases of willfulness or where necessary for public safety, the Assistant Secretary will: Notify the employer in writing of the facts or conduct that may warrant revocation of a variance and provide the employer, employees, and authorized employee representatives with an opportunity to participate in the revocation procedures.

The final rule differs somewhat from the variance section of the former rule. The text of the previous rule gave the Bureau of Labor Statistics authority to grant, deny, and revoke recordkeeping variances and exceptions. Under the former rule, applicants were required to petition the Regional Commissioner of the Department of Labor's Bureau of Labor Statistics (BLS) for the region where the establishment was located. Petitions that stretched beyond the regional boundary were referred to the BLS Assistant Commissioner. These responsibilities were transferred to OSHA in 1990 (Memorandum of Understanding between OSHA and BLS, 7/11/90) (Ex. 6), but the variance section of the rule itself was not amended at that time. This section of the final rule codifies the shift in responsibilities from the BLS to OSHA with regard to variances.

Like the former variance section of the rule, the final rule does not specifically note that the states operating OSHA-approved state plans are not permitted to grant recordkeeping variances. Paragraph (b) of former section 1952.4, OSHA's rule governing the operation of the State plans, prohibited the states from granting variances, and paragraph (c) of that rule required the State plans to recognize any Federal recordkeeping variances. The same procedures continue to apply to variances under section 1904.37 and section 1952.4 of this final rule. OSHA has not included the provisions from these two sections in the variance sections of this recordkeeping rule, because doing so would be repetitive.

The final rule adds several provisions to those of the former rule. They include (1) the identification of petitioning employers' pending citations in State plan states, (2) the discretion given to OSHA not to consider a petition if a citation on the same subject matter is pending, (3) the clarification that OSHA may provide additional notice via the **Federal Register** and opportunity for comment, (4) the clarification that variances have only prospective effect, (5) the opportunity of employees and their representatives to participate in revocation procedures, and (6) the voiding of all previous variances and exceptions.

Variance procedures were not discussed in the *Recordkeeping Guidelines* (Ex. 2), nor have there been any letters of interpretations or OSHRC or court decisions on recordkeeping variances. As noted in the proposal, at 61 FR 4039, only one recordkeeping variance has ever been granted by OSHA. This variance was granted to AT&T and subsequently expanded to its Bell subsidiaries to enable them to centralize records maintenance for workers in the field.

The final rule does not adopt the approach to variances proposed by OSHA in 1996 (see section 1904.15 of the proposal). OSHA proposed to eliminate the variance and exception procedure from the recordkeeping rules

altogether and instead to require all variances and exceptions to the recordkeeping rule to be processed under OSHA's general variance regulations, which are codified at 29 CFR Part 1905. As stated in the proposal, OSHA believed that this change would streamline the final recordkeeping rule and eliminate duplicate procedures for obtaining variances. OSHA also proposed to amend paragraph 1952.4(c) to make clear that employers were required to obtain all recordkeeping variances or exceptions from OSHA instead of from the BLS.

OSHA received very few comments on the proposed changes to the variance procedures. Some commenters approved the proposed approach but did not comment on its merits (see, *e.g.*, Exs. 15: 133, 136, 137, 141, 224, 266, 278). The International Dairy Foods Association (IDFA) supported the change if ''it is indeed * * * a duplicative section'' and ''no significant change will occur by deleting the provision'' (Ex. 15: 203). Another commenter stated that ''no employer should be exempt from record keeping and I cannot imagine what kind of variance for record keeping exceptions could exist. I am requesting that this proposal be removed from the standard'' (Ex. 15: 62). The Air Transport Association urged ''OSHA * * * [to] permit [airline] companies to keep records according to location or division * * * and without the need to seek and acquire variances, so long as records can be retrieved in a reasonable time for OSHA oversight purposes'' (Ex. 15: 378).

OSHA has decided, after further consideration, to continue to include a specific recordkeeping variance section in the final rule, and not to require employers who wish a recordkeeping variance or exception to follow the more rigorous procedures in 29 CFR part 1905. The procedures in Part 1905, which were developed for rules issued under sections 6 and 16 of the OSH Act, may not be appropriate for rules issued under section 8 of the Act, such as this recordkeeping rule.

The final rule thus retains a section on variance procedures for the recordkeeping rule. OSHA believes that few variances or exceptions will be granted under the variance procedures of the final rule because other provisions of the final rule already reflect many of the alternative recordkeeping procedures that employers have asked to use over the years, such as electronic storage and transmission of data, centralized record maintenance, and the use of alternative recordkeeping forms. Because these changes have been made to other sections of the final rule, there should be little demand for variances or exceptions. As OSHA noted in the proposal (61 FR 4039) in relation to the AT&T variance, ''[t]he centralization of records provision contained in this proposal [and subsequently adopted in the final rule] will eliminate the continued need for this variance.'' Similarly, the changes in paragraphs 1904.3(e) and (f) of the final rule that permit substitute forms and computerization of recordkeeping by employers, combined with the changes in paragraph 1904.30(c) that allow for recordkeeping at a central location will accommodate the Air Transport Association's request that OSHA ''permit airline companies to keep records according to location or division * * * without the need to seek and acquire variances'' (Ex. 15: 378). Under the final rule, companies are still required to summarize their injury and illness records for individual establishments, but may also produce records for separate administrative units if they wish to do so. Centralized and computerized recordkeeping systems make this a relatively simple task when compared to paper-driven and decentralized systems.

The final changes to the variance section of the former rule are minor. The primary change is to make clear that OSHA, rather than the BLS, has the responsibility for granting recordkeeping variances or exceptions. The other changes reflected in the final rule follow from the proposed rule and are intended to add several provisions from OSHA's general variance procedures in Part 1905. For example, paragraph (e) of section 1904.38 of the final rule is a modification of § 1905.11(b)(8), and paragraph (i) of this section of the final rule derives from section 1905.5. The objective of this paragraph is to give OSHA discretionary authority to decline to act on a petition where the petitioner has a pending citation. OSHA concludes that it would not be appropriate to consider granting a recordkeeping variance to an employer who has a pending recordkeeping violation before OSHRC or a State agency.

Paragraph (i) of the final rule supports paragraph (c)(7) from this same section because it provides a mechanism for giving OSHA notice of a citation pending before a state agency. Paragraph (i) also clarifies that variances only apply to future events, not to past practices. Paragraph (j) of section 1904.38 of the final rule nullifies all prior variances and exceptions. OSHA believes that it is important to begin with a ''clean slate'' when the final recordkeeping rule goes into effect. Employers with existing variances can re-petition the agency if the final rule does not address their needs. Another addition to the final rule makes explicit that OSHA can provide additional public notice via the **Federal Register** and may offer additional opportunity for public comment. A final addition recognizes and makes clear that employees can participate in variance revocation proceedings.

Subpart E. Reporting Fatality, Injury and Illness Information to the Government

Subpart E of this final rule consolidates those sections of the rule that require employers to give recordkeeping information to the government. In the proposed rule, these sections were not grouped together. OSHA believes that grouping these sections into one Subpart improves the overall organization of the rule and will make it easier for employers to find the information when needed. The four sections of this subpart of the final rule are:

(a) Section 1904.39, which requires employers to report fatality and multiple hospitalization incidents to OSHA.

(b) Section 1904.40, which requires an employer to provide his or her occupational illness and injury records to a government inspector during the course of a safety and health inspection.

(c) Section 1904.41, which requires employers to send their occupational illness and injury records to OSHA when the Agency sends a written request asking for specific types of information.

(d) Section 1904.42, which requires employers to send their occupational illness and injury records to the Bureau of Labor Statistics (BLS) when the BLS sends a survey form asking for information from these records.

Each of these sections, and the record evidence pertaining to them, is discussed below.

Section 1904.39 Reporting Fatality or Multiple Hospitalization Incidents to OSHA

Paragraph (a) of section 1904.39 of the final rule requires an employer to report work-related events or exposures involving fatalities or the in-patient hospitalization of three or more employees to OSHA. The final rule requires the employer, within 8 hours after the death of any employee from a work-related incident or the in-patient hospitalization of three or more

employees as a result of a work-related incident, to orally report the fatality/multiple hospitalization by telephone or in person to the Area Office of the Occupational Safety and Health Administration (OSHA), or to OSHA via the OSHA toll-free central telephone number, 1–800–321–6742.

The final rule makes clear in paragraph 1904.39(b)(1) that an employer may not report the incident by leaving a message on OSHA's answering machine, faxing the Area Office, or sending an e-mail, but may report the fatality or multiple hospitalization incident using the OSHA 800 number. The employer is required by paragraph 1904.39(b)(2) to report several items of information for each fatality or multiple hospitalization incident: the establishment name, the location of the incident, the time of the incident, the number of fatalities or hospitalized employees, the names of any injured employees, the employer's contact person and his or her phone number, and a brief description of the incident.

As stipulated in paragraph 1904.39(b)(3), the final rule does not require an employer to call OSHA to report a fatality or multiple hospitalization incident if it involves a motor vehicle accident that occurs on a public street or highway and does not occur in a construction work zone. Employers are also not required to report a commercial airplane, train, subway or bus accident (paragraph 1904.39(b)(4)). However, these injuries must still be recorded on the employer's OSHA 300 and 301 forms, if the employer is required to keep such forms. Because employers are often unsure about whether they must report a fatality caused by a heart attack at work, the final rule stipulates, at paragraph 1904.39(b)(5), that such heart attacks must be reported, and states that the local OSHA Area Office director will decide whether to investigate the incident, depending on the circumstances of the heart attack.

Paragraph 1904.39(b)(6) of the final rule clarifies that the employer is not required to report a fatality or hospitalization that occurs more than thirty (30) days after an incident, and paragraph 1904.39(b)(7) states that, if the employer does not learn about a reportable incident when it occurs, the employer must make the report within 8 hours of the time the incident is reported to the employer or to any of the employer's agents or employees.

Section 1904.39 of the final rule includes several changes from the proposed rule and section 1904.17 of the former rule. First, OSHA has rewritten the requirements of the former rule using the same plain-language question-and-answer format that is used throughout the rest of the rule. Second, this section clarifies that the report an employer makes to OSHA on a workplace fatality or multiple hospitalization incident must be an oral report. As the regulatory text makes clear, the employer must make such reports to OSHA by telephone (either to the nearest Area Office or to the toll-free 800 number) or in person. Third, the employer may not merely leave a message at the OSHA Area Office; instead, the employer must actually speak to an OSHA representative. Fourth, this section of the rule lists OSHA's 800 number for the convenience of employers and to allow flexibility in the event that the employer has difficulty reaching the OSHA Area Office. Fifth, this section eliminates the former requirement that employers report fatalities or multiple hospitalizations that result from an accident on a commercial or public transportation system, such as an airplane accident or one that occurs in a motor vehicle accident on a public highway or street (except for those occurring in a construction work zone, which must still be reported).

OSHA's proposal would have made three changes to the former rule: (1) it would have clarified the need for employers to make oral reports, (2) it would have included OSHA's 800 number in the text of the regulation, and (3) it would have required a site-controlling employer at a major construction site to report a multiple hospitalization incident if the injured workers were working at that site under the control of that employer.

A number of commenters supported all three of these proposed changes (see, *e.g.*, Exs. 15: 133, 136, 137, 141, 204, 224, 266, 278, 369, 378, 429). However, many commenters discussed the changes OSHA proposed, raised additional issues not raised in the proposal, and made various suggestions for the final rule. Comments are discussed below for each of the proposed changes.

Making oral reports of fatalities or multiple hospitalization incidents and the OSHA 800 number. The former rule required an employer to ''orally report'' fatality or multiple hospitalization incidents to OSHA by telephone or in person, although the rule did not specify that messages left on the Area Office answering machine or sent by e-mail would not suffice. Since the purpose of this notification is to alert OSHA to the occurrence of an accident that may warrant immediate investigation, such notification must be made orally to a ''live'' person. The changes made to the final rule are consistent with those proposed, except that the proposal would have required employers to report to the Area Office either by telephone or in person during normal business hours and to limit use of the toll-free 800 number to non-business hours.

A few commenters suggested ways for OSHA to make the 800 number more available to employers and to ensure that reports are made orally (see, *e.g.*, Exs. 15: 9, 154, 203, 229, 238, 239, 389). For example, the National Pest Control Association suggested that:

> [t]he agency print OSHA's emergency toll free number on the OSHA 300 and 301 forms and explain that employers are to call the number in the case of a fatality or multiple hospitalization during non-business hours. We would also urge OSHA to define ''non-business'' hours both in the regulatory text and on the forms (Ex. 15: 229).

Waste Management, Inc. (WMI) (Ex. 15: 389) recommended full reliance on the 800 number, proposing that:

> [t]he 800 number be used at all times. A recent event entailing an attempt to report to the local area office illustrates the difficulty in complying with this proposal. The caller was away from the office out-of-town and attempted to rely on information obtained from the local telephone information service. No local OSHA telephone number was identified as the local emergency number. The city had multiple area offices and telephone numbers without adequate identification at the telephone company information desk. The local number which was finally identified as the local OSHA emergency number could not be accessed from outside the calling area even if the caller was willing to pay the charges. After numerous calls and involvement of several levels of telephone management, the normal business day was completed and so the 800 number in Washington was called. The use of a single, nationwide 800 number has worked for EPA and other agencies. WMI believes it would simplify reporting requirements and ensure more timely reporting.

Houston Lighting and Power (Ex. 15: 239) suggested that OSHA allow employers to report either to the local OSHA Office or to the 800 number:

> [r]eporting of an incident either to the nearest Area Office or through the use of the 1–800 number should be available alternatives to the reporting requirement. The proposal limits when the 1–800 number may be used. In many cases the person reporting the incident may not be at the incident site. It is much more efficient to use a number that does not change from location to location than to attempt to identify each area office.

Tri/Mark Corporation (Ex. 15: 238) asked about reporting using fax or e-mail: ''If a live person is available to answer the 800 number, there is no

problem with this item. Could a fax or e-mail message be an appropriate notification tool?''

It is essential for OSHA to speak promptly to any employer whose employee(s) have experienced a fatality or multiple hospitalization incident to determine whether the Agency needs to begin an investigation. Therefore, the final rule does not permit employers merely to leave a message on an answering machine, send a fax, or transmit an e-mail message. None of these options allows an Agency representative to interact with the employer to clarify the particulars of the catastrophic incident. Additionally, if the Area Office were closed for the weekend, a holiday, or for some other reason, OSHA might not learn of the incident for several days if electronic or facsimile transmission were permitted. Paragraph 1904.39(b)(1) of the final rule makes this clear.

As noted, OSHA allows the employer to report a fatality or multiple hospitalization incident by speaking to an OSHA representative at the local Area Office either on the phone or in person, or by using the 800 number. This policy gives the employer flexibility to report using whatever mechanism is most convenient. The employer may use whatever method he or she chooses, at any time, as long as he or she is able to speak in person to an OSHA representative or the 800 number operator. Therefore, there is no need to define business hours or otherwise add additional information about when to use the 800 number; it is always an acceptable option for complying with this reporting requirement.

This final rule also includes the 800 number in the text of the regulation. OSHA has decided to include the number in the regulatory text at this time to provide an easy reference for employers. OSHA will also continue to include the 800 number in any interpretive materials, guidelines or outreach materials that it publishes to help employers comply with the reporting requirement.

Reporting by a site-controlling employer at a major construction site. The proposed rule would have required a ''site controlling employer or designee'' to report a case to OSHA ''if no more than two employees of a single employer were hospitalized but, collectively, three or more workers were hospitalized as in-patients.'' This provision was designed to capture those cases where three or more employees of different employers were injured and hospitalized in a single incident. Because a site-controlling employer was defined in the proposed rule as a construction firm with control of a project valued at $1,000,000 or more, the proposed rule would have applied only to those employers. Under the former rule, employers only needed to report if three of their own employees were hospitalized.

A number of commenters opposed the proposed change (see, *e.g.*, Exs. 25, 15: 9, 126, 199, 289, 305, 312, 335, 346, 356, 389, 406, 420). Several commenters argued that the provision would be unworkable because individual employers often do not know about the post-accident condition of the injured employees of other employers (see, *e.g.*, Exs. 15: 126, 346). Other commenters objected to placing the burden of such reporting on the general contractor on a construction site rather than on the individual employers of the affected employees (see, *e.g.*, Exs. 15: 312, 356). Still other commenters noted that, since the term ''site-controlling employer'' is defined by OSHA as an employer in the construction industry, this provision would have no apparent application in multi-employer settings outside the construction industry (see, *e.g.*, Exs. 15: 199, 335, 346).

After considering the issue further, OSHA agrees that it would be impractical to impose on one employer a duty to report cases of multiple hospitalizations of employees who work for other employers. Although such a reporting requirement would provide OSHA with information that the Agency could use to inspect some incidents that it might otherwise not know about, OSHA believes that the fatality and catastrophe provisions of the final rule will capture most such incidents. Accordingly, OSHA has not included this proposed provision in the final rule.

Eight hours to report. A number of commenters asked OSHA to extend the 8-hour period allowed for employers to report a fatality or a multiple hospitalization incident to OSHA. Most of the commenters who believe that this interval is too short recommended a 24- or 48-hour reporting time (see, *e.g.*, Exs. 33, 15: 35, 37, 176, 203, 218, 229, 231, 273, 301, 335, 341, 423, 425). For example, the International Dairy Foods Association (IDFA) (Ex. 15: 203) recommended that ''the reporting period be extended from 8 hours to 24 hours after the event. We feel this is appropriate because the resultant devastation in this type of situation would clearly overshadow the need to inform OSHA of an event that, with all due respect, could not be remedied by reporting it within 8 hours or less.'' The American Health Care Association (AHCA) (Ex. 15: 341) stated:

> [r]eporting workplace fatalities or multiple employee hospitalization within 8 hours is unrealistic and unreasonable because the employer's first concern should be to the employee(s) injured or killed, his/her family or damage to the building when others may be in imminent danger (*e.g.*, a fire in a health care facility may require evacuating and finding alternative placement for frail, elderly residents). AHCA recommends that OSHA revise the regulation by extending the time period for reporting fatalities or hospitalization of 3 or more employees to ''within 48 hours.''

After considering these comments, and reviewing the comments received during the comment period for the April 1, 1994 rulemaking on this issue (59 FR 15594–15600), OSHA has decided to continue the 8-hour requirement. The 1994 rulemaking noted the support of many commenters for the 8-hour rule, as well as support for 4-hours, 24 hours, and 48 hours. As OSHA discussed in the April 1, 1994 rulemaking, prompt reporting enables OSHA to inspect the site of the incident and interview personnel while their recollections are immediate, fresh and untainted by other events, thus providing more timely and accurate information about the possible causes of the incident. The 8-hour reporting time also makes it more likely that the incident site will be undisturbed, affording the investigating compliance officer a better view of the worksite as it appeared at the time of the incident. Further, from its enforcement experience, OSHA is not aware that employers have had difficulty complying with the 8-hour reporting requirement.

Motor vehicle and public transportation accidents. Several commenters recommended that OSHA not require employers to report to OSHA fatalities and multiple hospitalization catastrophes caused by public transportation accidents and motor vehicle accidents (see, *e.g.*, Exs. 33, 15: 176, 199, 231, 272, 273, 301, 303, 375). The comments of NYNEX (Ex. 15: 199) are typical:

> [t]he primary purpose of this section is to provide OSHA with timely information necessary to make a determination whether or not to investigate the scene of an incident. To NYNEX's knowledge, OSHA has not investigated public transportation accidents or motor vehicle accidents occurring on public streets or highways. In order to reduce unnecessary costs for both employers and OSHA, NYNEX recommends that fatalities and multiple hospitalizations resulting from these types of accidents be exempt from the reporting requirement.

OSHA agrees with these commenters that there is no need for an employer to report a fatality or multiple hospitalization incident when OSHA is

clearly not going to make an investigation. When a worker is killed or injured in a motor vehicle accident on a public highway or street, OSHA is only likely to investigate the incident if it occurred in a highway construction zone. Likewise, when a worker is killed or injured in an airplane crash, a train wreck, or a subway accident, OSHA does not investigate, and there is thus no need for the employer to report the incident to OSHA. The text of paragraphs 1904.39(b)(3) and (4) of the final rule clarifies that an employer is not required to report these incidents to OSHA. These incidents are normally investigated by other agencies, including local transit authorities, local or State police, State transportation officials, and the U.S. Department of Transportation.

However, although there is no need to *report* these incidents to OSHA under the 8-hour reporting requirement, any fatalities and hospitalizations caused by motor vehicle accidents, as well as commercial or public transportation accidents, are *recordable* if they meet OSHA's recordability criteria. These cases should be captured by the Nation's occupational fatality and injury statistics and be included on the employer's injury and illness forms. The statistics need to be complete, so that OSHA, BLS, and the public can see where and how employees are being made ill, injured and killed. Accordingly, the final rule includes a sentence clarifying that employers are still required to record work-related fatalities and injuries that occur as a result of public transportation accidents and injuries.

Although commenters are correct that OSHA only rarely investigates motor vehicle accidents, the Agency does investigate motor vehicle accidents that occur at street or highway construction sites. Such accidents are of concern to the Agency, and OSHA seeks to learn new ways to prevent these accidents and protect employees who are exposed to them. For example, OSHA is currently participating in a Local Emphasis Program in the State of New Jersey that is designed to protect highway construction workers who are exposed to traffic hazards while performing construction work. Therefore, the final rule provides provisions that require an employer to report a fatality or multiple hospitalization incident that occurs in a construction zone on a public highway or street.

Other issues related to the reporting of fatalities and multiple hospitalization incidents. Commenters also raised several issues not addressed in the proposed rule. The National Pest Control Association (NPCA) (Ex. 15: 229) asked OSHA to allow for a longer reporting time in those rare cases where the owner of a small business was himself or herself incapacitated in the accident, suggesting that:

> [l]anguage be included in the rule revisions to provide for additional time to report fatalities and multiple hospitalizations if the employer is hospitalized or otherwise incapacitated. * * * Typically, pest control companies are very small operations. Many employ five or less employees. Often times the business owner is out in the field as much as the employees. So, let's say an employer is hospitalized during a work-related incident that also claimed the life of an employee, who happened to be the lone employee. Can the employer really be expected to report the fatality within eight hours? In most instances the eight hour requirement is rather reasonable, however, in this circumstance it is not. NPCA asks that the agency consider adding language allowing small employers who are hospitalized additional time to report a multiple hospitalization or fatality.

OSHA has decided that there is no need to include language to address this very rare occurrence. If such an unfortunate event were to occur, OSHA would certainly allow a certain amount of leeway for the employer or a representative to report the case. The OSHA inspector can, for good cause, provide the employer with reasonable relief from citation and penalty for failing to report the incident within 8 hours, especially if the employer reports it as soon as possible.

Bell Atlantic (Ex. 15: 218) and the Dow Chemical Company (Ex. 15: 335) recommended that OSHA include additional provisions for employees who are admitted to the hospital for observation only. Bell Atlantic's comments were: ''Bell Atlantic also recommends that the hospitalization requirement [for reporting multiple hospitalizations] be limited to those workers that are hospitalized overnight for treatment. The current proposal does not address hospitalization for observation, only that they are non-recordable.''

OSHA disagrees with these comments, as it did when similar comments were submitted to the record in the 1994 rulemaking on this provision [59 FR 15596–15597]. If three or more workers are hospitalized overnight, whether for treatment or observation, the accident is clearly of a catastrophic nature, and OSHA needs to learn about it promptly. Additionally, the inpatient distinction provides an easy-to-understand trigger for reporting. In many instances, a patient who is admitted for observation as an inpatient later receives treatment after the true nature and extent of the injury becomes known. At the time of the incident, when reporting is most useful, the employer is unlikely to know the details about the treatment that the worker is receiving (*e.g.*, observation only or medical treatment). However, the employer will probably know that the employee has been admitted to the hospital as an inpatient.

The United Parcel Service (UPS) (Ex. 15: 424) suggested that the 8-hour time period for reporting apply only when a higher ranking official of the company learns of the fatality or catastrophe, stating:

> [U]PS supports this proposal, with one modification: the provision that the eight-hour limit begins to run on notice to an employee or agent is over broad. It may happen that workers who learn of the death or hospitalization of a co-worker do not notify the employer in sufficient time to enable the manager in charge of contacting OSHA to meet the deadline. The better rule, therefore, is to require OSHA modification within eight hours of the incident's being reported to a supervisor, manager, or company official. This allowance is particularly necessary for incidents occurring away from the work site.

The issue of who within the company must learn of the incident before the reporting deadline was also discussed in the 1994 rulemaking [59 FR 15597]. As in the former rule, the final rule requires reporting within 8 hours of the time any agent or employee of the employer becomes aware of the incident. It is the employer's responsibility to ensure that appropriate instructions and procedures are in place so that corporate officers, managers, supervisors, medical/health personnel, safety officers, receptionists, switchboard personnel, and other employees or agents of the company who learn of employee deaths or multiple hospitalizations know that the company must make a timely report to OSHA.

Section 1904.40 Providing Records to Government Representatives

Under the final rule, employers must provide a complete copy of any records required by Part 1904 to an authorized government representative, including the Form 300 (Log), the Form 300A(Summary), the confidential listing of privacy concern cases along with the names of the injured or ill privacy case workers, and the Form 301 (Incident Report), when the representative asks for the records during a workplace safety and health inspection. This requirement is unchanged from the corresponding requirement in OSHA's former recordkeeping rule. However, the

former rule combined the requirements governing both government inspectors' and employers' rights of access to the records into a single section, section 1904.7 ''Access to Records.'' The final rule separates the two. It places the requirements governing access to the records by government inspectors in Subpart E, along with other provisions requiring employers to submit their occupational injury and illness records to the government or to provide government personnel access to them. Provisions for employee access to records are now in section 1904.35, Employee Involvement, in Subpart D of this final rule.

The final regulatory text of paragraph (a) of section 1904.40 requires an employer to provide an authorized government representative with records kept under Part 1904 within four business hours. As stated in paragraph 1904.40(b)(1), the authorized government representatives who have a right to obtain the Part 1904 records are a representative of the Secretary of Labor conducting an inspection or investigation under the Act, a representative of the Secretary of Health and Human Services (including the National Institute for Occupational Safety and Health (NIOSH) conducting an investigation under Section 20(b) of the Act, or a representative of a State agency responsible for administering a State plan approved under section 18 of the Act. The government's right to ask for such records is limited by the jurisdiction of that Agency. For example, a representative of an OSHA approved State plan could only ask for the records when visiting an establishment within that state.

The final rule allows the employer to take into account difficulties that may be encountered if the records are kept at a location in a different time zone from the establishment where the government representative has asked for the records. If the employer maintains the records at a location in a different time zone, OSHA will use the business hours of the establishment at which the records are located when calculating the deadline, as permitted by paragraph 1904.40(b)(2).

The former rule. Paragraph 1904.7(a) of the former OSHA recordkeeping rule required employers to provide authorized government representatives with access to the complete Form 200, without the removal of any information (unredacted). That paragraph read as follows:

> Each employer shall provide, upon request, records provided for in §§ 1904.2, 1904.4, and 1904.5, for inspection and copying by any representative of the Secretary of Labor for the purpose of carrying out the provisions of the Act, and by representatives of the Secretary of Health, Education, and Welfare during any investigation under section 20(b) of the Act, or by any representative of a State accorded jurisdiction for occupational safety and health inspections or for statistical compilation under sections 18 and 24 of the Act.

The proposal. The proposed regulation was consistent with OSHA's former recordkeeping regulation in that it continued to require employers to provide government representatives with access to the entire OSHA injury and illness Log and Summary (Forms 300 and 300A) and OSHA Incident Record (Form 301). Proposed paragraph 1904.11(a), ''Access to Records,'' read as follows:

> *Government Representatives.* Each employer shall provide, upon a request made in person or in writing, copies of the OSHA Forms 300 and 301 or equivalents, and year-end summaries for their own employees, and injury and illness records for ''subcontractor employees'' as required under this Part to any authorized representative of the Secretary of Labor or Secretary of Health and Human Services or to any authorized representative of a State accorded jurisdiction for occupational safety and health for the purposes of carrying out the Act.
>
> (1) When the request is made in person, the information must be provided in hard copy (paper printout) within 4 hours. If the information is being transmitted to the establishment from some other location, using telefax or other electronic transmission, the employer may provide a copy to the government representative present at the establishment or to the government representative's office.
>
> (2) When the request is made in writing, the information must be provided within 21 days of receipt of the written request, unless the Secretary requests otherwise.

The proposal thus would have continued to combine the records access provisions for government personnel with the access provisions for employees, former employees and employee representatives. The proposed rule would have modified the former rule in several ways, however (61 FR 4038). First, it would have required the employer to provide copies of the forms, while the former rule simply required the employer to provide records for inspection and copying. Second, the proposal would have required the employer to produce the records within 4 hours, while the former rule did not specify any time period. Third, the proposed rule would have allowed an employer either to provide the records at the inspection location, or to fax the records to the government inspector's home office. This would allow employers to keep their records at a centralized location as long as the government inspector could obtain the information promptly. Fourth, the proposed rule would have required the employer to send Part 1904 information to OSHA within 21 days of the date on which a written request was received from the Agency. This time limit for mailed survey forms was established in section 1904.17 of the former rule and is carried forward in this final rule at section 1904.40.

The proposal also requested comment on situations where the 4-hour requirement might be infeasible and posed several questions for the public to consider:

> OSHA solicits input on these time limitations. Are they reasonable? Should they be shortened or extended? Should the requirement be restricted to business hours, and if so, to the business hours of the establishment to which the records pertain or the establishment where the records are maintained?

Many commenters agreed with OSHA that government representatives should have access to the records themselves (see, *e.g.*, Exs. 15: 78, 163, 218, 359, 369, 405). For example, Alliant Techsystems remarked ''[c]opies of this data should be given to OSHA personnel'' (Ex. 15: 78). A number of commenters agreed that OSHA personnel should have access to the OSHA 301 records, even though they did not think that employees and their representatives should have access to the Form 301 (see, *e.g.*, Exs. 33, 15: 1, 39, 76, 82, 83, 159, 183, 185, 193, 226, 330, 335, 338, 359, 373, 383, 385, 389, 399, 409, 423). For example, the American Meat Institute (AMI) (Ex. 15: 330) ''[b]elieves that it is imperative that personal identifiers be explicitly excluded from information that would be readily available to anyone, with the single exception of an interested government regulator.'' The Texas Chemical Council (Ex. 15: 159) argued: ''[L]ogs with employees'' names should only be accessed by selected individuals (i.e., OSHA inspectors, medical personnel, etc.). Posting or viewing of OSHA 300 log or 301 reports without names should be the avenue for employees to access information.''

Other commenters disagreed with one or more of the proposed access provisions (see, *e.g.*, Exs. 25, 27, 15: 13, 22, 39, 60, 82, 100, 102, 105, 111, 117, 119, 124, 139, 142, 154, 170, 174, 181, 182, 183, 193, 215, 239, 258, 277, 294, 297, 305, 313, 315, 317, 318, 346, 347, 352, 353, 359, 375, 378, 390, 392. 393, 395, 397, 399, 409, 425, 430, 440.) These commenters raised a wide range of issues. These included the right of OSHA inspectors to access the records; employers' Fourth Amendment rights; the way the government handles

information in its possession; employee privacy concerns; and the proposed requirement to produce the records within 4 hours. On the right of OSHA inspectors to access the records, for example, the Douglas Battery Manufacturing Company (Ex. 15: 82) stated:

> [n]one of these records should be * * * used to conduct an OSHA compliance inspection. Such action would be in direct conflict with the purpose of the OSHA log which is to track injury and illness trends so corrective action can be taken by the employer.

OSHA does not agree with this view, because government inspectors conducting workplace safety and health inspections need these records to carry out the purposes of the Act, i.e., to identify hazards that may harm the employees working there. The Part 1904 records provide information about how workers are injured or made ill at work and help guide the inspector to the hazards in the workplace that are causing injury and illness. Although these records may not cover all hazards that exist in a particular workplace, they help the inspector to identify hazards more completely during an inspection.

Fourth amendment issues. A number of commenters argued that the regulatory requirement to provide records to a government inspector violated Fourth Amendment guarantees against unreasonable searches and the right to demand a warrant or subpoena before the government can search a citizen's property (see, *e.g.*, Exs. 25, 27, 15: 124, 139, 154, 174, 193, 215, 258, 305, 315, 318, 346, 375, 390, 392 395, 397). For example, the Workplace Safety and Health Council (Ex. 15: 313) stated:

> [t]his provision would require employers to give OSHA a copy of a Form 300 and 301. This proposal flies in the face of court decisions holding that employers may not be penalized for declining to provide current Form 101 upon request and that, to gain access to them, OSHA must proceed by subpoena or inspection warrant. Secretary v. Taft Broadcasting Co., 849 F.2d 990 (6th Cir. 1988); *Brock* v. *Emerson Electric Co.,* 834 F.2d 994 (11th Cir. 1987). These decisions are based on an employer's constitutional rights and they are not subject to change by OSHA regulation.

These commenters appear to be arguing that including a subpoena or warrant enforcement mechanism in the text of the rule is necessary to adequately protect their Fourth Amendment right to privacy. This is not the case, however. The Fourth Amendment protects against ''unreasonable'' intrusions by the government into private places and things. Reporting rules that do not depend on subpoena or warrant powers are not ''unreasonable'' per se. *See e.g., California Bankers Ass'n* v. *Shultz,* 416 U.S. 21, 67 (1974) (upholding reporting regulation issued under the Bank Secrecy Act of 1970 that did not provide for subpoenas or warrants where the ''information was sufficiently described and limited in nature and sufficiently related to a tenable Congressional determination'' that the information would have a high degree of usefulness in criminal, tax, or regulatory investigations or proceedings).

In any event, the text of the rule is silent as to the enforcement mechanism OSHA will use in what OSHA hopes will be the rare case in which an employer does not provide a copy of the records on request. OSHA may proceed by applying for a warrant, or by administrative subpoena, or by citation where doing so is consistent with the Fourth Amendment. OSHA notes that employers have a Fourth Amendment right to require a warrant before an OSHA representative may physically enter a business establishment for an inspection.

The totality of circumstances surrounding a warrantless or ''subpoena-less'' administrative investigation or investigation program determines its reasonableness. For example, in *McLaughlin* v. *A.B. Chance,* 842 F.2d at 727 (4th Cir. 1988), the Fourth Circuit upheld a records access citation against an employer who refused an OSHA inspector access to its OSHA Logs and forms on the ground that it had a right to insist on a warrant or subpoena; the Court held that the inspector had such a right because a summary of the information was posted annually on the employee bulletin board and the inspector was lawfully on the premises to investigate a safety complaint. In *New York* v. *Burger,* 482 U.S. 691, 702–703 (1987), the Supreme Court noted that agencies may gather information without a warrant, subpoena, or consent if the information would serve a substantial governmental interest, a warrantless (or subpoena-less) inspection is necessary to further the regulatory scheme, and the agency acts pursuant to an inspection program that is limited in time, place, and scope. The *Burger* court upheld a warrantless inspection of records during an administrative inspection of business premises. See also *Kings Island* (noting that under *Burger* a warrantless or subpoena-less inspection of records might be reasonable, but concluding that the facts of the case did not satisfy *Burger* analysis); *Emerson Electric* (noting that under *California Bankers* an agency may gain access to information without a subpoena or warrant but concluding that the facts of that case were not comparable to those reviewed in *California Bankers*).

Given that some warrantless and subpoena-less searches during an OSHA inspection may be reasonable while others may not, depending on the circumstances of the individual inspection, OSHA has decided not to include a subpoena or warrant enforcement mechanism in the text of the rule. However, OSHA will continue to enforce the rule within the parameters of applicable court decisions.

Privacy of medical records. A number of commenters questioned the right of the government to access information in the records because of privacy concerns about medical records (see, *e.g.*, Exs. 27, 15: 13, 22, 39, 60, 82, 117, 119, 142, 183, 359, 378, 392, 399.) The National Association of Manufacturers (NAM) (Ex. 15: 142) stated that ''[t]he privacy interference as proposed that opens up medical records to most anyone is inconceivable, and should be eliminated.'' The National Oilseed Processors Association (Ex. 15: 119) recommended:

> [t]he issue of privacy is an important one that should be handled carefully and with sensitivity to individual rights. We believe that the release of medical records of a specific employee should only be done after the employee whose records may be released has provided written permission to the employer to do so.

This section of the final rule does not give unfettered access to the records by the public, but simply allows a government inspector to use the records during the course of a safety and health inspection. As discussed above in the section covering access to the records for employees, former employees, and employee representatives (Section 1904.35), OSHA does not consider the Forms 300 and 301 to be medical records, for the following reasons. First, they do not have to be completed by a physician or other licensed health care professional. Second, they do not contain the detailed diagnostic and treatment information usually found in medical records. Finally, the injuries and illnesses found in the records are usually widely known among other employees at the workplace where the injured or ill worker works; in fact, these co-workers may even have witnessed the accident that gave rise to the injury or illness.

OSHA does not agree that its inspectors should be required to obtain permission from all injured or ill employees before accessing the full records. Gaining this permission would make it essentially impossible to obtain

full access to the records, which is needed to perform a meaningful workplace investigation. For example, an inspector would not be able to obtain the names of employees who were no longer working for the company to perform follow-up interviews about the specifics of their injuries and illnesses. The names of the injured or ill workers are needed to allow the government inspector to interview the injured and ill workers and determine the hazardous circumstances that led to their injury or illness. The government inspector may also need the employee's names to access personnel and medical records if needed (medical records can only be accessed after the inspector obtains a medical access order). Additionally, refusing the inspector access to the names of the injured and ill workers would effectively prohibit any audit of the Part 1904 records by the government, a practice necessary to verify the accuracy of employer recordkeeping in general and to identify problems that employers may be having in keeping records under OSHA's recordkeeping rules. Adopting the inefficient access method suggested by these commenters would also place a substantial administrative burden on the employer, the employees, and the government. Further, since OSHA inspectors do not allow others to see the medical records they have accessed, the privacy of employees is not compromised by CSHO access to the records.

Time for response to requests for records. Paragraphs 1904.40(a) and (b) of the final rule require records to be made available to a government inspector within 4 business hours of an oral request for the records, using the business hours of the establishment at which the records are located.

A number of commenters opposed the proposed 4-hour records production requirement as being unreasonable and burdensome (see, *e.g.*, Exs. 15: 89, 182, 185, 204, 213, 226, 260, 262, 265, 277, 294, 297, 317, 324, 348, 392, 401, 409, 425). Several of these commenters recommended longer intervals, ranging from 8 hours (see, *e.g.*, Exs. 15: 9, 133, 204, 271, 294, 343), the ''next business day,'' or 24 hours (see, *e.g.*, Exs. 15: 200, 225, 277, 394, 425), 72 hours (see, *e.g.*, Exs. 15: 65, 154), 6 days (Ex. 15: 226), and 21 days (Ex. 15: 317). On the other hand, some commenters were concerned that access not be unduly delayed (see, *e.g.*, Exs. 15: 350, 369, 418, 429). Two commenters (Exs. 15: 418, 429) recommended that the 4-hour requirement be reduced to two hours, except when the request would extend the reply period beyond regular business hours, when 4 hours would be acceptable.

OSHA has concluded that 4 hours is a reasonable and workable length of time for employers to respond to governmental requests for records. The 4-hour time period for providing records from a centralized source strikes a balance between the practical limitations inherent in record maintenance and the government official's need to obtain these records and use the information to conduct a workplace inspection.

Some commenters noted that temporary computer or fax failures could interfere with an employer's ability to comply with the 4-hour requirement (see, *e.g.*, Exs. 15: 203, 254, 423). One commenter felt that additional time should be given to employers if equipment failure prevented the retrieval of the records within four hours (Ex. 15: 423). The American Society of Safety Engineers (ASSE) questioned whether four hours is a reasonable time frame for employers who use independent third parties to maintain their records (Ex. 15: 182).

Several commenters raised concerns that other difficulties might make it difficult to produce the records in the allotted time. Some noted that the 4-hour time limit might not be adequate for large facilities with voluminous records (see, *e.g.*, Exs. 15: 181, 297, 425). For example, the American Automobile Manufacturers Association (AAMA) (Ex. 15: 409) stated:

> [m]any of our members' locations have only one medical person working, and to disrupt the normal medical care of injured or ill employees to produce records within a four hour period is not in the best interests of the health and safety of all concerned. Many additional factors must be taken into account in terms of the production of records such as locating the files, copying the files, having appropriate staffing to do the copying, and if the records are on a computer, the computer must not be on down time.

OSHA believes that it is essential for employers to have systems and procedures that can produce the records within the 4-hour time. However, the Agency realizes that there may be unusual or unique circumstances where the employer cannot comply. For example, if the records are kept by a health care professional and that person is providing emergency care to an injured worker, the employer may need to delay production of the records. In such a situation, the OSHA inspector may allow the employer additional time.

If a government representative requests records of an establishment, but those records are kept at another location, the 4-hour period can be measured in accordance with the normal business hours at the location where the records are being kept. Some commenters observed that personnel at the centralized location might not be available to respond to requests if the 4-hour period extended outside the regular business hours of that location (see, *e.g.*, Exs. 15: 105, 111, 159, 170, 225, 239, 272, 294, 303, 332, 336, 343, 356, 359, 389, 393, 430). This problem could arise under two different scenarios. First, if the centralized location were in a different time zone than the site whose records are requested, the business hours of the respective locations may differ by three or even more hours. Second, the business hours of a manufacturing plant or a construction site might differ from the business hours of the company's central offices, even if the operations are in the same time zone. Under the final rule, the employer has 4 regular business hours at the location at which the records are kept in which to comply with the request of a government representative.

OSHA has designed the final rule to give each employer considerable flexibility in maintaining records. It permits an employer to centralize its records, to use computer and facsimile technologies, and to hire a third party to keep its records. However, an employer who chooses these options must also ensure that they are sufficiently reliable to comply with this rule. In other words, the flexibility provided to employers for recordkeeping must not impede the Agency's ability to obtain and use the records.

Provide copies. Several commenters objected to the proposed requirement that employers provide copies of the records to government personnel without charging the government to do so (see, *e.g.*, Exs. 15: 69, 86, 100, 179, 347, 389, 397, 409). Most of these commenters cited the paperwork burden on employers as the primary reason for objecting. Several suggested that the employer be allowed to charge for copies, or that the government representative make their own copies (see, *e.g.*, Exs. 15: 179, 347, 389, 409). This view was expressed in a comment from the Ford Motor Company (Ex. 15: 347):

> [a]n undue burden may be placed on the establishment should a compliance officer ask for an inordinate amount of records or records which will not be utilized. Authorized government representatives should make their own copies and therefore will be diligent in asking only for those materials they will be utilizing.

OSHA's experience has been that the vast majority of employers willingly provide copies to government representatives during safety and health inspections. Making copies is a routine office function in almost every modern workplace. With the widespread availability of copying technology, most workplaces have copy machines on-site or readily available. The cost of providing copies is minimal, usually less than five cents per copy. In addition, the government representative needs to obtain copes of records promptly, so that he or she can analyze the data and identify workplace hazards. Therefore, in this final rule, OSHA requires the employer to provide copies of the records requested to authorized government representatives.

Other Section 1904.40 issues. Commenters raised additional issues about providing occupational illness and injury information to OSHA during an inspection. The American Ambulance Association (Ex. 15: 226) recommended that OSHA ''[p]lace greater emphasis on the fact that employers do not have to provide Forms 300 and 301 unless OSHA specifically asks for their submission.'' OSHA believes that the final rule is clear on this point, because it states that the employer must provide the records only when asked by an authorized government representative to do so.

Several commenters stated that all requests for occupational safety and health information should be made in writing (see, *e.g.*, Exs. 15: 69, 317, 397). OSHA believes that it is neither appropriate nor necessary to require a government representative to request the information in writing. Government officials who are conducting workplace inspections may ask for any number of materials or ask verbally for information about various matters during the course of an inspection. Putting these requests in writing would impede workplace inspections and delay efforts to address workplace hazards.

Section 1904.41 Annual OSHA Injury and Illness Survey of Ten or More Employers

Section 1904.41 of this final rule replaces section 1904.17, ''Annual OSHA Injury and Illness Survey of Ten or More Employers,'' of the former rule issued on February 11, 1997. The final rule does not change the contents or policies of the corresponding section of the former rule in any way. Instead, the final rule simply rephrases the language of the former rule in the plain language question-and-answer format used in the rest of this rule. The following table shows the text of Section 1904.17 of the former rule, followed by the text of Section 1904.41 of this final rule.

Former sections 1904.17	New section 1904.41
''Annual OSHA Injury and Illness Survey of Ten or More Employers''	''Annual OSHA Injury and Illness Survey of Ten or more Employers''
1904.17(a) Each employer shall, upon receipt of OSHA's Annual Survey Form, report to OSHA or OSHA's designee the number of workers it employed and number of hours worked by its employees for periods designated in the Survey Form and such information as OSHA may request from records required to be created and maintained pursuant to 29 CFR Part 1904.	1904.41(a) Basic Requirement. If you receive OSHA's annual survey from, you must fill it out and send it to OSHA or OSHA's designee, as stated on the survey form. You must report the following information for the year described on the form: (1) the number of workers you employed; (2) the number of hours worked by your employees; and (3) the requested information from the records that you keep under Part 1904.
No comparable provision	1904.41(b)(1) Does every employer have to send data to OSHA?
	No. Each year, OSHA sends injury and illness survey forms to employers in certain industries. In any year, some employers will receive an OSHA survey form and others will not. You do not have to send injury and illness data to OSHA unless you receive a survey form.
1904.17(b) Survey reports shall be transmitted to OSHA by mail or other remote transmission authorized by the Survey Form within the time period specified in the Survey Form, or 30 calendar days, whichever is longer..	1904.41(b)(2) How quickly do I need to respond to an OSHA survey form?
	You must send the survey reports to OSHA, or OSHA's designee, by mail or other means described in the survey form, within 30 calendar days, or by the date stated in the survey form, whichever is later.
1904.17(c) Employers exempted from keeping injury and illness records under §§ 1904.15 and 1904.16 shall maintain injury and illness records required by §§ 1904.2 and 1904.4, and make Survey Reports pursuant to this Section, upon being notified in writing by OSHA, in advance of the year for which injury and illness records will be required, that the employer has been selected to participate in an information collection.''.	1904.41(b)(3) Do I have to respond to an OSHA survey form if I am normally exempt from keeping OSHA injury and illness records?
	Yes. Even if you are exempt from keeping injury and illness records under § 1904.1 to § 1904.3, OSHA may inform you in writing that it will be collecting injury and illness information from you in the following year. If you receive such a survey form, you must keep the injury and illness records required by § 1904.5 to § 1904.15 and make survey reports for the year covered by the survey.
1904.17(d) Nothing in any State plan approved under Section 18 of the Act shall affect the duties of employers to comply with this section..	1904.41(b)(4) Do I have to answer the OSHA survey form if I am located in a State-Plan State?
	Yes. All employers who receive survey forms must respond to the survey, even those in State-Plan States
1904.17(e) Nothing in this section shall affect OSHA's exercise of its statutory authorities to investigate conditions related to occupational safety and health.	1904.41(b)(5) Does this section affect OSHA's authority to inspect my workplace?
	No. Nothing in this section affects OSHA's statutory authority to investigate conditions related to occupational safety and health.

Thus, section 1904.41 of the final rule merely restates, in a plain language question-and-answer format, the requirements of former rule section 1904.17, with one minor change. The final rule adds paragraph 1904.41(b)(1), which contains no requirements or prohibitions but simply informs the employer that there is no need to send in the Part 1904 injury and illness data until the government asks for it.

Section 1904.42 Requests From the Bureau of Labor Statistics for Data

Section 1904.42 of the final rule derives from the subpart of the former rule titled ''Statistical Reporting of Occupational Injuries and Illnesses.'' The former rule described the Bureau of Labor Statistics annual survey of occupational injuries and illnesses, discussed the duty of employers to answer the survey, and explained the effect of the BLS survey on the States operating their own State plans.

Both OSHA and the BLS collect occupational injury and illness information, each for separate purposes. The BLS collects data from a statistical sample of employers in all industries and across all size classes, using the data to compile the occupational injury and illness statistics for the Nation. The Bureau gives each respondent a pledge of confidentiality (as it does on all BLS surveys), and the establishment-specific injury and illness data are not shared with the public, other government agencies, or OSHA. The BLS's sole purpose is to create statistical data.

OSHA collects data from employers from specific size and industry classes, but collects from each and every employer within those parameters. The establishment-specific data collected by OSHA are used to administer OSHA's various programs and to measure the performance of those programs at individual workplaces.

OSHA proposed to replace sections 1904.20, .21, and .22 of the former rule with a single reporting provision that would combine the requirements for BLS and OSHA survey reports into a single section (61 FR 4039). However, since the time of the proposal, OSHA has determined that the BLS and OSHA information collections warrant separate coverage because they occur at different times and collect data for different purposes. When OSHA published final Section 1904.17, Annual OSHA Injury and Illness Surveys (62 FR 6434, Feb. 11, 1997), the Agency made clear that its surveys are separate from any collections of injury and illness data by the BLS. Accordingly, the final rule includes two separate sections: section 1904.41, which is devoted entirely to the collection of employer-generated injury and illness data by OSHA, and section 1904.42, which is devoted to the collection of such data by the Bureau of Labor Statistics.

Many commenters discussed the need for accurate government statistics about occupational death, injury and illness; however, very few of the comments specifically addressed the proposed provisions relating to employer participation in the BLS survey. The comments OSHA did receive on this point addressed the burden imposed by requests for employer records and the potential duplication between the data collections of OSHA and the BLS (see, *e.g.*, Exs. 15: 9, 163, 184, 390, 402). The comments of the U.S. West Company (Ex. 15: 184) are typical:

> [U]S WEST acknowledges the need for the Secretary of Labor to periodically request reports, including recordkeeping data, from employers. However, US WEST does ask that OSHA carefully consider the need for such reports and work to streamline the process and reduce redundancies. Specifically, US WEST requests that OSHA move to implement systems that will allow employers to electronically provide data, such as the data requested in the BLS Survey of Occupational Injuries and Illnesses. Such a method will be more effective, in terms of receiving consistently formatted data, and will be more cost efficient for both employers and the Department of Labor.
>
> In addition, the DOL should work to avoid duplicate internal efforts that are costly and time-consuming for the government and employers. By way of example, US WEST has in the past received requests from BLS to complete the Survey and from OSHA to complete the Occupational Injury and Illness Report (Form 196B) for the same facility. Both surveys collect similar information.

OSHA and the BLS have worked together for many years to reduce the number of establishments that receive both surveys. These efforts have largely been successful. However, OSHA and BLS use different databases to select employers for their surveys. This makes it difficult to eliminate the overlap completely. We are continuing to work on methods to reduce further the numbers of employers who receive both BLS and OSHA survey requests.

OSHA and BLS are also pursuing ways to allow employers to submit occupational injury and illness data electronically. In 1998, the OSHA survey allowed employers for the first time to submit their data electronically, and this practice will continue in future OSHA surveys. The BLS has not yet allowed electronic submission of these data due to security concerns, but continues to search for appropriate methods of electronic submission, and hopes to allow it in the near future.

In this final rule, OSHA has replaced former sections 1904.20 to 1904.22 with a new section 1904.42, which is stated in the form of a basic requirement and four implementing questions and answers about the BLS survey. Former section 1904.20 ''Description of statistical program,'' is not carried forward in the final rule because it merely described BLS's general legal authority and sampling methodology and contained no regulatory requirements.

Section 1904.21 of the former rule, titled ''Duties of employers,'' required an employer to respond to the BLS annual survey: ''Upon receipt of an Occupational Injuries and Illnesses Survey Form, the employer shall promptly complete the form in accordance with the instructions contained therein, and return it in accordance with the aforesaid instructions.''

Paragraphs 1904.42(a), (b)(1) and (b)(2) of the final rule being published today replace former section 1904.21. Paragraph 1904.42(a) states the general obligation of employers to report data to the BLS or a BLS designee. Paragraph 1904.42(b)(1) states that some employers will receive a BLS survey form and others will not, and that the employer should not send data unless asked to do so. Paragraph 1904.42(b)(2) directs the employer to follow the instructions on the survey form when completing the information and return it promptly.

Paragraph 1904.42(b)(3) of this final rule notes that the BLS is authorized to collect data from all employers, even those who would otherwise be exempt, under section 1904.1 to section 1904.3, from keeping OSHA injury and illness records. This enables the BLS to produce comprehensive injury and illness statistics for the entire private sector. Paragraph 1904.42(b)(3) combines the requirements of former rule paragraphs 1904.15(b) and 1904.16(b) into this paragraph of the final rule.

In response to the question ''Am I required to respond to a BLS survey form if I am normally exempt from keeping OSHA injury and illness records?,'' the final rule states ''Yes. Even if you are exempt from keeping injury and illness records under § 1904.1 to § 1904.3, the BLS may inform you in writing that it will be collecting injury and illness information from you in the coming year. If you receive such a survey form, you must keep the injury and illness records required by § 1904.4 to § 1904.12 and make survey reports for the year covered by the survey.''

Paragraph 1904.42(b)(4) of this final rule replaces section 1904.22 of the former rule. It provides that employers in the State-plan States are also required to fill out and submit survey forms if the BLS requests that they do so. The final rule thus specifies that the BLS has the authority to collect information on occupational fatalities, injuries and illnesses from: (1) employers who are required to keep records at all times; (2) employers who are normally exempt from keeping records; and (3) employers under both Federal and State plan jurisdiction. The information collected in the annual survey enables BLS to generate consistent statistics on occupational death, injury and illness for the entire Nation.

Subpart F. Transition From the Former Rule to the New Rule

The transition interval from the former rule to the new rule involves several issues, including training and outreach to familiarize employers and employees about the now forms and

requirements, and informing employers in newly covered industries that they are now required to keep OSHA Part 1904 records. OSHA intends to make a major outreach effort, including the development of an expert software system, a forms package, and a compliance assistance guide, to assist employers and recordkeepers with the transition to the new rule. An additional transition issue for employers who kept records under the former system and will also keep records under the new system is how to handle the data collected under the former system during the transition year. Subpart F of the final rule addresses some of these transition issues.

Subpart F of the new rule (sections 1904.43 and 1904.44), addresses what employers must do to keep the required OSHA records during the first five years the new system required by this final rule is in effect. This five-year period is called the transition period in this subpart. The majority of the transition requirements apply only to the first year, when the data from the previous year (collected under the former rule) must be summarized and posted during the month of February. For the remainder of the transition period, the employer is simply required to retain the records created under the former rule for five years and provide access to those records for the government, the employer's employees, and employee representatives, as required by the final rule at sections 1904.43 and 44.

The proposal did not spell out the procedures that the employer would have to follow in the transition from the former recordkeeping rule to the new rule. OSHA realizes that employers will have questions about how they are required to handle the data collected under the former system during this transition interval. The final rule maintains the basic structure and recordkeeping practices of the former system, but it employs new forms and somewhat different requirements for recording, maintaining, posting, retaining and reporting occupational injury and illness information. Information collection and reporting under the final rule will continue to be done on a calendar year basis. The effective date for the new rule is January 1, 2001. OSHA agrees with the commenter who stated that beginning the new recordkeeping system on ''Any other date [but January 1] would create an insurmountable number of problems * * *'' (Ex. 27). Accordingly, employers must begin to use the new OSHA 300 and 301 forms and to comply with the requirements of this final rule on January 1, 2002.

Some commenters stressed the need for an orderly transition from the former system to the new system, and pointed out that adequate lead time is needed to understand and assimilate the changes, make adjustments in their data management systems, and train personnel who have recordkeeping responsibilities (see, *e.g.*, Exs. 15: 9, 36, 119, 347, 409).

The transition also raises questions about what should be done in the year 2002 with respect to posting, updating, and retaining the records employers compiled in 2001 and previous years. In the transition from the former rule to the present rule, OSHA intends employers to make a clean break with the former system. The new rule will replace the old rule on the effective date of the new rule, and OSHA will discontinue the use of all previous forms, interpretations and guidance on that date (see, *e.g.*, Exs. 21, 22, 15: 184, 423). Employers will be required to prepare a summary of the OSHA Form 200 for the year 2001 and to certify and post it in the same manner and for the same time (one month) as they have in the past. The following time table shows the sequence of events and postings that will occur:

Date	Activity
2001	Employers keep injury and illness information on the OSHA 200 form
January 1, 2002	Employers begin keeping data on the OSHA 300 form
February 1, 2002	Employers post the 2001 data on the OSHA 200 Form
March 1, 2002	Employers may remove the 2001 posting
February 1, 2003	Employers post the 2002 data on the OSHA 300A form
May 1, 2003	Employers may remove the 2002 posting

The final rule's new requirements for dual certification and a 3-month posting period will not apply to the Year 2000 Log and summary. Employers still must retain the OSHA records from 2001 and previous years for five years from the end of the year to which they refer. The employer must provide copies of the retained records to authorized government representatives, and to his or her employees and employee representatives, as required by the new rule.

However, OSHA will no longer require employers to update the OSHA Log and summary forms for years before the year 2002. The former rule required employers to correct errors to the data on the OSHA 200 Logs during the five-year retention period and to add new information about recorded cases. The former rule also required the employer to adjust the totals on the Logs if changes were made to cases on them (Ex. 2, p. 23). OSHA believes it would be confusing and burdensome for employers to update and adjust previous years' Logs and Summaries under the former system at the same time as they are learning to use the new OSHA occupational injury and illness recordkeeping system.

Subpart G. Definitions

The Definitions section of the final rule contains definitions for five terms: ''the Act,'' ''establishment,'' ''health care professional,'' ''injury and illness,'' and ''you.'' To reduce the need for readers to move back and forth from the regulatory text to the Definitions section of this preamble, all other definitions used in the final rule are defined in the regulatory text as the term is used. OSHA defines the five terms in this section here because they are used in several places in the regulatory text.

The Act

The Occupational Safety and Health Act of 1970 (the ''OSH Act'') is defined because the term is used in many places in the regulatory text. The final rule's definition is essentially identical to the definition in the proposal. OSHA received no comments on this definition. The definition of ''the Act'' follows:

The Act means the Occupational Safety and Health Act of 1970 (84 Stat. 1590 et seq., 29 U.S. 651 et seq.), as amended. The definitions contained in section (3) of the Act and related interpretations shall be applicable to such terms when used in this Part 1904.

Employee

The proposed rule defined ''employee'' as that term is defined in section 3 of the Act and added a Note describing the various types of employees covered by this

recordkeeping rule (*e.g.*, ''leased employees,'' ''seasonal employees''). In the final rule, OSHA has decided that it is not necessary to define ''employee'' because the term is defined in section 3 of the Act and is used in this rule in accordance with that definition.

Employer

The proposed rule included a definition of ''employer'' that was taken from section 3 of the Act's definition of that term. Because the final rule uses the term ''employer'' just as it is defined in the Act, no separate definition is included in the final rule.

Establishment

The final rule defines an establishment as a single physical location where business is conducted or where services or industrial operations are performed. For activities where employees do not work at a single physical location, such as construction; transportation; communications, electric, gas and sanitary services; and similar operations, the establishment is represented by main or branch offices, terminals, stations, etc. that either supervise such activities or are the base from which personnel carry out these activities.

The final rule also addresses whether one business location can include two or more establishments. Normally, one business location has only one establishment. However, under limited conditions, the employer may consider two or more separate businesses that share a single location to be separate establishments for recordkeeping purposes. An employer may divide one location into two or more establishments only when: each of the proposed establishments represents a distinctly separate business; each business is engaged in a different economic activity; no one industry description in the Standard Industrial Classification Manual (1987) applies to the joint activities of the proposed establishments; and separate reports are routinely prepared for each establishment on the number of employees, their wages and salaries, sales or receipts, and other business information. For example, if an employer operates a construction company at the same location as a lumber yard, the employer may consider each business to be a separate establishment.

The final rule also deals with the opposite situation, and explains when an establishment includes more than one physical location. An employer may combine two or more physical locations into a single establishment only when the employer operates the locations as a single business operation under common management; the locations are all located in close proximity to each other; and the employer keeps one set of business records for the locations, such as records on the number of employees, their wages and salaries, sales or receipts, and other kinds of business information. For example, one manufacturing establishment might include the main plant, a warehouse serving the plant a block away, and an administrative services building across the street. The final rule also makes it clear that when an employee telecommutes from home, the employee's home is not a business establishment for recordkeeping purposes, and a separate OSHA 300 Log is not required.

The definition of ''establishment'' is important in OSHA's recordkeeping system for many reasons. First, the establishment is the basic unit for which records are maintained and summarized. The employer must keep a separate injury and illness Log (the OSHA Form 300), and prepare a single summary (Form 300A), for each establishment. Establishment-specific records are a key component of the recordkeeping system because each separate record represents the injury and illness experience of a given location, and therefore reflects the particular circumstances and hazards that led to the injuries and illnesses at that location. The establishment-specific summary, which totals the establishment's injury and illness experience for the preceding year, is posted for employees at that establishment and may also be collected by the government for statistical or administrative purposes.

Second, the definition of establishment is important because injuries and illnesses are presumed to be work-related if they result from events or exposures occurring in the work environment, which includes the employer's establishment. The presumption that injuries and illnesses occurring in the work environment are by definition work-related may be rebutted under certain circumstances, which are listed in the final rule and discussed in the section of this preamble devoted to section 1904.5, Determination of work-relatedness. Third, the establishment is the unit that determines whether the partial exemption from recordkeeping requirements permitted by the final rule for establishments of certain sizes or in certain industry sectors applies (see Subpart B of the final rule). Under the final rule's partial exemption, establishments classified in certain Standard Industrial Classification codes (SIC codes) are not required to keep injury and illness records except when asked by the government to do so. Because a given employer may operate establishments that are classified in different SIC codes, some employers may be required to keep OSHA injury and illness records for some establishments but not for others, *e.g.* if one or more of the employer's establishments falls under the final rule's partial exemption but others do not.

Fourth, the definition of establishment is used to determine which records an employee, former employee, or authorized employee representative may access. According to the final rule, employees may ask for, and must be given, injury and illness records for the establishment they currently work in, or one they have worked in, during their employment.

The proposed rule defined an establishment as:

(1) A single physical location that is in operation for 60 calendar days or longer where business is conducted or where services or industrial operations are performed. (For example: A factory, mill, grocery store, construction site, hotel, farm, ranch, hospital, central administrative office, or warehouse.) The establishment includes the primary work facility and other areas such as recreational and storage facilities, restrooms, hallways, etc. The establishment does not include company parking lots.

(2) When distinct and separate economic activities are performed at a single physical location, each activity may represent a separate establishment. For example, contract construction activities conducted at the same physical location as a lumber yard may be treated as separate establishments. According to the Standard Industrial Classification (SIC) Manual, Executive Office of the President, Office of Management and Budget, (1987) each distinct and separate activity should be considered an establishment when no one industry description from the SIC manual includes such combined activities, and the employment in each such economic activity is significant, and separate reports can be prepared on the number of employees, their wages and salaries, sales or receipts, or other types of establishment information.

The final rule modifies this definition in several ways: it deletes the ''60 days in operation'' threshold, adds language to the definition to address the concerns of employers who operate geographically dispersed establishments, describes in greater detail what OSHA means by separate establishments at one location, and defines which locations must be considered part of the establishment, and which employee activities must be considered work-related, for

recordkeeping purposes. Each of these topics is discussed below.

Subpart G of the final rule defines ''establishment'' as ''a single physical location where business is conducted or where services or industrial operations are performed. For activities such as construction; transportation; communications, electric and gas utility, and sanitary services; and similar operations, the establishment is represented for recordkeeping purposes by main or branch offices, terminals, stations, etc. that either supervise such activities or are the base from which personnel carry out these activities.'' This part of the definition of ''establishment'' provides flexibility for employers whose employees (such as repairmen, meter readers, and construction superintendents) do not work at the same workplace but instead move between many different workplaces, often in the course of a single day.

How the definition of ''establishment'' must be used by employers for recordkeeping purposes is set forth in the answers to the questions posed in this paragraph of Subpart G:

(1) Can one business location include two or more establishments?

(2) Can an establishment include more than one physical location?

(3) If an employee telecommutes from home, is his or her home considered a separate establishment?

The employer may consider two or more economic activities at a single location to be separate establishments (and thus keep separate OSHA Form 300s and Form 301s for each activity) only when: (1) Each such economic activity represents a separate business, (2) no one industry description in the Standard Industrial Classification Manual (1987) applies to the activities carried out at the separate locations; and (3) separate reports are routinely prepared on the number of employees, their wages and salaries, sales or receipts, and other business information. This part of the definition of ''establishment'' allows for separate establishments when an employer uses a common facility to house two or more separate businesses, but does not allow different departments or divisions of a single business to be considered separate establishments. However, even if the establishment meets the three criteria above, the employer may, if it chooses, consider the physical location to be one establishment.

The definition also permits an employer to combine two or more physical locations into a single establishment for recordkeeping purposes (and thus to keep only one Form 300 and Form 301 for all of the locations) only when (1) the locations are all geographically close to each other, (2) the employer operates the locations as a single business operation under common management, and (3) the employer keeps one set of business records for the locations, such as records on the number of employees, their wages and salaries, sales or receipts, and other business information. However, even for locations meeting these three criteria, the employer may, if it chooses, consider the separate physical locations to be separate establishments. This part of the definition allows an employer to consider a single business operation to be a single establishment even when some of his or her business operations are carried out on separate properties, but does not allow for separate businesses to be joined together. For example, an employer operating a manufacturing business would not be allowed to consider a nearby storage facility to be a separate establishment, while an employer who operates two separate retail outlets would be required to consider each to be a separate establishment.

OSHA received many comments on the proposed definition of ''establishment.'' These are organized by topic and discussed below.

How long must an establishment exist to have a separate OSHA Log. The proposed rule would have required an establishment to be in operation for 60 days to be considered an ''establishment'' for recordkeeping purposes. Under the proposed definition, employers with establishments in operation for a lesser period would not have been required to keep a log for that operation. The proposed 60-day threshold would have changed the definition of ''establishment'' used in OSHA's former recordkeeping rule, because that rule included a one-year-in-operation threshold for defining establishments required to keep a separate OSHA log (Ex. 2, p. 21). The effect of the proposed change in the threshold would have been to increase the number of short-duration operations required to maintain separate injury and illnesses records. In particular, the proposed change would have affected construction employers and utility companies.

The majority of the comments OSHA received on this issue opposed the decrease in the duration of the threshold from one year to 60 calendar days. A few commenters, however, supported the proposed 60-day rule (see, *e.g.*, Exs. 15: 9, 133, 310, 369, 425), and some urged OSHA to adopt an even shorter time-in-operation threshold (see, *e.g.*, Exs. 15: 369, 418, 429). Typical of the comments favoring an even shorter period was one from the International Brotherhood of Teamsters (IBT):

> [t]he International Brotherhood of Teamsters is encouraged by OSHA's modification to the definition of an establishment, especially reducing the requirement for an operation in a particular location from one year to sixty days. The IBT would strongly support reducing the requirement to thirty days to cover many low level housing construction sites, and transient operations, similar to mobile amusement parks (Ex. 15: 369).

The AFL–CIO agreed: ''* * * [t]he 60-day time period is still too long. We believe that to truly capture a majority of these transient worksites, a 30-day time period would be more realistic. A 30-day time period as the trigger would capture construction activities such as trenching, roofing, and painting projects which will continue to be missed if a 60-day time period is used'' (Ex. 15: 418).

Those commenters objecting to the proposed 60-day threshold usually did so on grounds that requiring temporary facilities to maintain records would be burdensome and costly and would not increase the utility of the records (see, *e.g.*, Exs. 21, 15: 21, 43, 78, 116, 122, 123, 145, 170, 199, 213, 225, 254, 272, 288, 303, 304, 305, 308, 338, 346, 349, 350, 356, 358, 359, 363, 364, 375, 389, 392, 404, 412, 413, 423, 424, 433, 437, 443, 475). For example, the Associated Builders and Contractors, Inc. (ABC) remarked:

> ABC agrees with OSHA's sentiment of making injury and illness records useful, but disagrees that sites in existence for as little as 60 days need separate injury and illness records. The redefinition of ''establishment'' will cause enormous problems for subcontractors in a variety of construction industries. Even employers with small workforces could be on the site of several projects at any one time, and in the course of the year could have sent crews to hundreds of sites. Though they may be on such sites for only brief periods of time, they will be required under this proposal to create separate logs for each site, increasing greatly their paperwork requirements without increasing the amount of information available to their employees. Projects which last less than 90 days do not need separate logs. Requiring separate logs for short-term projects only increases inefficiency and costs, while doing nothing for safety (Ex. 15: 412).

Many of these commenters argued that a 60-day threshold would be especially burdensome if it captured small work sites where posting of the annual summary or mailing the summary to employees would make little sense because so few cases would

be captured on each Log. The majority of these commenters suggested that OSHA retain the former one-year duration threshold in the definition of establishment (see, *e.g.*, Exs. 15: 78, 123, 225, 254, 305, 356, 389, 404).

Other commenters expressed concern that the proposed 60-day threshold would create an unreasonable burden on employers in service industries like telecommunications and other utilities, whose employees typically report to a fixed location but perform tasks at transient locations that remain in existence for more than 60 days and would thus be classified as new ''establishments'' for OSHA recordkeeping purposes (see, *e.g.*, Exs. 15: 65, 170, 199, 213, 218, 332, 336, 409, 424).

OSHA has reviewed all of the comments on this issue and has responded by deleting any reference to a time-in-operation threshold in the definition of establishment but specifying a one-year threshold in section 1904.30 of the final rule. In response to comments, OSHA has thus continued the former one-year threshold rather than adopting the 60-day threshold proposed. Under the final rule, employers will be required to maintain establishment-specific records for any workplace that is, or is expected to be, in operation for one year or longer. Employers may group injuries and illnesses occurring to workers who are employed at shorter term establishments onto one or more consolidated logs. These logs may cover the entire company; geographic regions such as a county, state or multi-state area; or individual divisions of the company. For example, a construction company with multi-state operations might have separate logs for each state to show the injuries and illnesses of short-term projects, as well as separate logs for each construction project expected to last for more than one year.

OSHA finds, based on the record evidence, that the one-year threshold will create useful records for stable establishments without imposing an unnecessary burden on the many establishments that remain in existence for only a few months. OSHA concludes that the one-year threshold and permitting employers to keep one Log for geographically dispersed or short-term facilities will also provide more useful injury and illness records for workers employed in transient establishments. This will be the case because the records will capture more cases, which enhances the informational value of the data and permits analysis of trends.

Geographically Dispersed Workplaces. A number of commenters raised issues of particular importance to the construction and utility industries (see, *e.g.*, Exs. 15: 43, 116, 122, 123, 145, 170, 199, 213, 225, 272, 288, 303, 305, 350, 359, 364, 392, 412, 433, 443). In addition to objections about the 60-days-in-operation threshold in the definition of establishment, these commenters raised concerns about the difficulty of keeping records for a mobile and dispersed workforce. Representative of these comments is the statement by Con Edison (Ex. 15: 213):

> Con Edison believes that OSHA's proposal to tie its redefinition of a permanent establishment to a 60-day time frame, as opposed to the present one-year limit, would be costly, overly burdensome and in some cases unworkable. On many occasions work must be performed on city streets or in out of the way areas during the erection of overhead transmission and distribution lines. These projects may carry on for periods greater than the 60-day period specified above for designation as an establishment. No permanent structures are erected at these sites and to require maintenance of records there is impractical. Con Edison believes that the definition of establishment as set forth in the 1987 Standard Industrial Classification Manual (see below) should apply.
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> ''For activities such as * * * electric * * * and similar physically dispersed operations, establishments are represented by those relatively permanent main or branch offices, terminals, stations, etc. that are (2) the base from which personnel operate to carry out these activities. Hence, the individual sites, projects, fields, networks, lines, or system of such dispersed activities are not ordinarily considered to be establishments.'' (SIC Manual, 1987, p. 265).

OSHA agrees that the recordkeeping system must recognize the needs of operations of this type and has adopted language in the final rule to provide some flexibility for employers in the construction, transportation, communications, electric and gas utility, and sanitary services industries, as well as other employers with geographically dispersed operations. The final rule specifies, in Subpart G, that employers may consider main or branch offices, terminals, stations, etc. that are either (1) responsible for supervising such activities, or (2) the base from which personnel operate to carry out these activities, as individual establishments for recordkeeping purposes. This addition to the final rule's definition of establishment allows an employer to keep records for geographically dispersed operations using the existing management structure of the company as the recording unit. Use of this option will also mean that each Log will capture more cases, which will, as discussed above, improve the chances of discovering patterns of occupational injury and illness that can be used to make safety and health improvements. At the same time, by requiring records to be kept for any individual construction project that is expected to last for one year or longer, the final rule ensures that useful records are generated for more permanent facilities.

More than one establishment at a single location. OSHA's former rule recognized, for recordkeeping purposes, that more than one establishment can exist at a single location, although most workplaces consist of a single establishment at a single location. The final rule also recognizes that, in some narrowly defined situations, a business may have side-by-side operations at a single location that are operated as separate businesses because they are engaged in different lines of business. In these situations, the Standard Industrial Classification Manual (OMB 1987) allows a single business location to be classified as two separate establishments, each with its own SIC code. Like all government agencies, OSHA follows the OMB classification method and makes allowances for such circumstances.

The proposal stated that distinct, separate economic activities performed at a single physical location may each be classified, for recordkeeping purposes, as a separate establishment. The proposed definition stated that each distinct and separate economic activity may be considered an establishment when (1) no one industry description from the Standard Industrial Classification (SIC) manual includes such combined activities, (2) the employment in each economic activity is significant, and (3) separate reports can be prepared on the number of employees, their wages and salaries, sales or receipts, or other types of establishment information. The final rule is essentially unchanged from the proposal on this point, but the language has been modified to make it clear that the employer may employ this option only in the enumerated circumstances.

Several commenters were in favor of OSHA's proposed definition of separate establishments as places engaged in separate economic activities (see, *e.g.*, Exs. 15: 185, 297, 375) and agreed that when distinct and separate economic activities are performed at a single physical location, each activity should be considered a separate establishment.

Others, however, disagreed with the proposed definition of multiple establishments at a single location (see, *e.g.*, Exs. 15: 194, 305, 322, 346, 347, 348, 389, 409, 424, 431). The comments

of the Ford Motor Company (Ex. 15: 347) and the American Automobile Manufacturing Association (AAMA) (Ex. 15: 409) are representative:

> [a]ll economic activities performed at a single location should be allowed to be placed on a single log. Many of these locations have only one medical department, payroll, or management. At many of these locations, separate reports cannot be prepared on the number of employees per establishment, and at times many of the employees will work at separate sites within the same single physical location. To break down the economic activities to record injuries and illness on different logs is confusing, difficult, and overly burdensome.

United Parcel Service (UPS) (Ex. 15: 424) added:

> [t]he proposal should be amended to make clear that treatment of a different activity as a separate establishment is optional, not mandatory—the proposal currently results in unnecessary ambiguity by saying first that separate activities ''may'' be separate establishments, and then describing situations in which they ''should be'' considered an establishment. A requirement that such vaguely defined ''economic activities'' be treated as separate ''establishments'' would be mistaken: employers would be left to guess what is an ''economic activity'' and when it is ''separate'' from another. Moreover, such mandatory separate recordkeeping would unnecessarily burden employers with determining when separate records are required, and with maintaining such separate records.

These commenters understood the proposed language as requiring employers to keep separate logs if separate economic activities were being conducted at a single establishment; what OSHA intended, and the final rule makes clear in Subpart G, is that an employer whose activities meet the final rule's definition may keep separate logs if he or she chooses to do so. Thus the final rule includes a provision that allows an employer to define a single business location as two separate establishments only under specific, narrow conditions. The final rule allows the employer to keep separate records only when the location is shared by completely separate business operations involved in different business activities (Standard Industrial Classifications) for which separate business records are available. By providing specific, narrow criteria, the final rule reduces ambiguity and confusion about what is required and sets out the conditions that must be met in order for employers to deviate from the one place-one establishment concept.

OSHA expects that the overwhelming majority of workplaces will continue to be classified as one establishment for recordkeeping purposes, and will keep just one Log. However, allowing some flexibility for the rare cases that meet the specified criteria is appropriate. The employer is responsible for determining whether a given workplace meets the criteria; OSHA will consider an employer meeting these criteria to be in compliance with the final rule if he or she keeps one set of records per facility. This policy allows an employer to keep one set of records for a given location and avoid the additional burden or inconvenience associated with keeping separate records.

The McDonnell Douglas Corporation (Ex. 15: 297) and the American Textile Manufacturers Institute (ATMI) (Ex. 15: 156) commented on a different scenario, one in which a single establishment could encompass more than one physical location. ATMI remarked that:

> [O]SHA's definition of establishment as ''a single physical location'' is too restrictive. We believe that OSHA should be more flexible since many industries have primary facilities with secondary work facilities that have the same local management. For example, in the textile industry, a plant may use a warehouse that is not physically attached but the plant manager is responsible for the both facilities. We suggest that the text of the rule be modified to read: ''A single physical location or multiple physical locations under the same management * * *.''

OSHA agrees that there are situations where a single establishment that has a satellite operation in close physical proximity to the primary operation may together constitute a single business operation and thus be a single establishment. For example, a business may have a storage facility in a nearby building that is simply an adjunct to the business operation and is not a separate business location.

OSHA believes that there are situations where establishments in separate physical locations constitute a single establishment. However, under the final rule, employers will only be allowed to combine separated physical locations into a single establishment when they operate the combined locations as a single business operation under common management and keep a single set of business records for the combined locations, such as records on the number of employees, their wages and salaries, sales or receipts, and other types of business information.

How OSHA defines an establishment also has implications for the way company parking lots and recreation facilities, such as company-provided gymnasiums, ball fields, and the like are treated for recordkeeping purposes. The 1986 *Guidelines* excluded these areas from the definition of establishment and thus did not require injuries and illnesses occurring to employees at these locations to be recorded unless the employee was actually performing work in those areas (Ex. 2, p. 33). The final rule includes these areas in the definition of establishment but does not require employers to record cases occurring to employees engaged in certain activities at these locations. For example, injuries and illnesses occurring at the establishment while the employee is voluntarily engaged in recreation activities or resulting from a motor vehicle accident while the employee is commuting to or from work would not have to be recorded (see section 1904.5). The following paragraphs discuss OSHA's reasons for taking this approach to the recording of injuries and illnesses occurring in these locations.

Company Parking Lots and Access Roads. Because the former rule excluded company parking lots and access roads from the definition of establishment, injuries and illnesses that occurred to their employees while on such parking lots and access roads were not considered work-related and did not have to be recorded on the Log; the proposed rule would have continued this practice. Many commenters urged OSHA not to consider injuries and illnesses occurring in these locations work-related, principally because, in the view of these commenters, employers have little control over safety and health conditions in their parking lots (see, *e.g.*, Exs. 15: 9, 65, 78, 95, 105, 107, 111, 119, 136, 137, 141, 154, 159, 194, 203, 204, 218, 224, 225, 260, 262, 265, 266, 277, 278, 288, 304, 337, 389, 401). The comments of the American Gas Association (AGA) are representative: ''AGA agrees with OSHA that parking lots and access roads should be excluded from the definition of establishment and therefore injuries occurring there are not work-related. Likewise, injuries and illnesses that occur during commuting must also continue to be excluded'' (Ex. 15: 225). The Texas Chemical Council (TCC) agreed with this position: ''[T]CC supports continuing these exceptions. Employers have limited to no control over variables that contribute to incidents occurring in parking lots or during commutes to and from work'' (Ex. 15: 159).

Other commenters, however, argued that cases occurring on company parking lots and access roads should be included in the establishment's Log (see, *e.g.*, Exs. 15: 61, 157, 310, 407, 432). The Laborer's Health and Safety

Fund of North America pointed to the difficulty of separating cases occurring on the parking lot from those occurring at other locations within the establishment:

[w]e do not believe that company parking lots should be excluded from the definition of establishment. The parking lot exclusion seems to be based on the assumption that parking lots are separate from loading dock and other work areas. On road construction sites, ''parking lots'' are sometimes right in the middle of the work zones where heavy equipment is operating. Pedestrian employees being hit by traffic and moving machinery are responsible for about 41.5% of the yearly fatalities in road construction and maintenance work. We believe that excluding parking lots from the definition of establishment would open the door to under reporting of workplace fatalities on construction sites, and discourage construction employers from establishing safe parking areas for their employees (Ex. 15: 310).

The National Institute for Occupational Safety and Health (NIOSH) presented statistical data demonstrating the importance of safety and health measures in employer-owned parking lots:

[N]IOSH does not support continuing the exemption of employer-owned parking lots from the definition of an establishment. NIOSH recommends that OSHA require employers to record cases meeting the work relationship criteria that occur in employer-owned parking areas. Employers have extensive control over the environmental conditions in their own parking areas. Environmental conditions that are under employer control include snow and ice accumulation in walk areas, vicinity lighting around parked cars and entrance ways, and security provisions in parking areas. In 1993, parking lots and garages were identified in a study of violence in the workplace as the location where 211 fatal injuries occurred [Toscano and Weber 1995]. Eighty-two of these deaths were homicides. Parking lots and garages accounted for 3.4% of fatal injuries and 7.8% of homicides. Data on the total number of injuries and illnesses occurring in parking lots and garages is unknown. However, in 1992 the category ''parking lots'' was listed as the source of injury or illness for 10,000 cases involving days away from work [U.S. Department of Labor l995a]. The proportion of parking lots and garages owned by the employer where fatal and nonfatal injuries occurred is not known (Ex. 15: 407).

OSHA agrees with NIOSH that company parking lots can be highly hazardous and that employers have considerable control over conditions in such lots. In addition, OSHA believes that having data on the kinds of injuries and illnesses occurring on company parking lots and access roads will permit employers to address the causes of these injuries and illnesses and thus to provide their employees with better protection. Accordingly, for recordkeeping purposes, the final rule includes company parking lots and access roads in the definition of establishment. However, the final rule recognizes that some injuries and illnesses occurring on company parking lots and access roads are not work-related and delineates those that are work-related from those that are not work-related on the basis of the activity the employee was performing at the time the injury or illness occurred. For example, when an employee is injured in a motor vehicle accident that occurs during that employee's commute to or from work, the injury is not considered work-related. Thus, the final rule allows the employer to exclude from the Log injuries and illnesses occurring on company parking lots and access roads while employees are commuting to or from work or running personal errands in their motor vehicles (see section 1904.5). However, other injuries and illnesses occurring in parking lots and on access roads (such as accidents at loading docks, while removing snow, falls on ice, assaults, etc.) are considered work-related and must be recorded on the establishment's Log if they meet the other recording criteria of the final rule (*e.g.*, if they involve medical treatment, lost time, etc.).

OSHA concludes that the activity-based approach taken in the final rule will be simpler for employers to use than the former rule's location-based approach and will result in the collection of better data. First, the activity-based approach eliminates the need for employers to determine where a parking lot begins and ends, i.e., what specific areas constitute the parking lot, which can be difficult in the case of combined, interspersed, or poorly defined parking areas. Second, it ensures the recording of those injuries and illnesses that are work-related but simply happen to occur in these areas. If parking lots and access roads are totally excluded from the definition of establishment, employers would not record *any* injury or illness occurring in such locations. For example, employers could fail to record an injury occurring to an employee performing work, such as building an attendant's booth or demarcating parking spaces, from the Log.

Recreation facilities. Although the proposed rule would have included recreational facilities in the definition of establishment, it would have excluded, for recordkeeping purposes, injuries and illnesses occurring to employees who were voluntarily participating in wellness activities at fitness or recreational facilities maintained by the employer. As discussed above, OSHA believes that including in the final rule a list of activities that employers can use to rebut the presumption of work-relatedness for recordkeeping purposes will greatly simplify the system for employers and result in the collection of more meaningful data. Including a list of such activities in the final rule was supported by many commenters (see, *e.g.*, Exs. 15: 65, 151, 152, 170, 179, 180, 204, 246, 350, 392). The comments of the Tosco Corporation are representative: ''[w]e agree that the recreational facilities should not be automatically excluded, but rather that the voluntary use of the facilities govern the work relatedness as OSHA has indicated. This will make the OSHA regulation consistent with workers compensation rulings'' (Ex. 15: 246).

An even larger number of commenters disagreed with OSHA's proposed approach, however, arguing that a location-based, rather than activity-based, exclusion was more appropriate for recordkeeping purposes (see, *e.g.*, Exs. 15: 9, 95, 111, 119, 136, 137, 141, 154, 156, 184, 194, 203, 213, 218, 224, 232, 266, 271, 277, 278, 288, 304, 317, 345, 347, 389, 409, 414, 423, 428, 431). For example, the law firm of Constangy, Brooks & Smith, LLC, argued that excluding facilities is simpler than excluding activities: ''* * * [t]he current requirements allow a more simplified analysis of the recreational facility issue and this analysis should be retained in place of the more complicated analysis that would be imposed under the Proposed Recordkeeping Rule'' (Ex. 15: 345).

Other employers stressed the concept that changing the exclusion for recreational facilities would reduce the incentive for employers to provide such facilities for their employees' use (see, *e.g.*, Exs. 15: 136, 137, 141, 213, 224, 266, 278). The remarks of the Society for Human Resource Management (SHRM) are typical: ''[t]o presume that the employee's usage of weight room facilities is involuntary may be unrealistic and would likely result in the closure of employer provided weight rooms, golf courses, and other facilities which benefit the employees * * *'' (Ex. 15: 431).

In the final rule, OSHA has decided to include recreational areas in the definition of establishment but to include voluntary fitness and recreational activities, and other wellness activities, on the list of excepted activities employers may use to rebut the presumption of work-relatedness in paragraph 1904.5(b)(2). OSHA finds that this approach is

simpler and will provide better injury and illness data because recreational facilities are often multi-use areas that are sometimes used as work zones and sometimes as recreational areas. Several of the interpretations OSHA has provided over the years address this problem. For example, the loading dock or warehouse at some establishments has an area with a basketball hoop that is used for impromptu ball games during breaks, while at other establishments employees may use a grassy area to play softball, an empty meeting room for aerobics classes, or the perimeter of the property as a jogging or bicycling track. Providing an exception based on activity will make it easier for employers to evaluate injuries and illnesses that occur in mixed-use areas of the facility.

This approach is also consistent with OSHA's overall approach in the final rule of using specific activity-based exemptions to allow the employer to rebut the presumption of work relationship rather than providing exemptions by modifying the definition of establishment. OSHA also does not believe that this approach will provide an incentive for employers to eliminate recreational and fitness opportunities for their employees. Both approaches exempt the same injuries from recording, but the final rule's approach provides employers with a more straightforward mechanism for rebutting the presumption of work relationship.

OSHA believes that injuries and illnesses occurring to employees who are present in recreational areas as part of their assigned work duties should be recorded on the Log; the final rule thus only permits employers to exclude recreational activities that are being performed by the employee voluntarily from their Logs. For example, an injury to an exercise instructor hired by the company to conduct classes and demonstrate exercises would be considered work related, as would an injury or illness sustained by an employee who is required to exercise to maintain specific fitness levels, such as a security guard.

Private homes as an establishment. Two commenters raised the issue of whether or not private homes could constitute an establishment (see, *e.g.*, Exs. 21, 15: 304, 358). The National Federation of Independent Business (NFIB) stated: ''[N]FIB believes that the definition of establishment as applied to extremely small work sites, including private homes, needs to be reexamined'' (Ex. 15: 304). The Organization Resource Counselors (ORC) added: ''[d]efinition of establishment as applied to extremely small work sites including private homes needs to be reexamined. The sixty day rule by itself does not seem unreasonable except that it captures these small work sites where the requirements for posting or mailing summaries make little sense'' (Ex. 21).

In the final rule, OSHA has not excluded private homes from the definition of establishment because many private homes contain home offices or other home-based worksites, and injuries and illnesses occurring to employees during work activities performed there on behalf of their employer are recordable if the employer is required to keep a Log. However, the final rule makes clear that, in the case of an employee who telecommutes from his or her home, the home is not considered an establishment for OSHA recordkeeping purposes and the employer is not required to keep a separate Log for the home office. For these workers, the worker's establishment is the office to which they report, receive direction or supervision, collect pay, and otherwise stay in contact with their employer, and it is at this establishment that the Log is kept. For workers who are simply working at home instead of at the company's office, i.e., for employees who are telecommuting, OSHA does not consider the worker's home to be an establishment for recordkeeping purposes, and the definition of establishment makes this fact clear. OSHA has recently issued a compliance directive clarifying that OSHA does not and will not inspect home offices in the employee's home and would inspect a home-based worksite other than a home office only if the Agency received a complaint or referral. A fuller discussion concerning the determination of the work-relatedness of injuries and illnesses that occur when employees are working in their homes can be found in the discussion of § 1904.5 Determination of work-relatedness.

Miscellaneous issues. Two commenters recommended that OSHA consider excluding injuries and illnesses occurring to employees while they were present in other areas as well (Exs. 15: 203, 389). The International Dairy Foods Association (IDFA) suggested:

> [i]n addition, facilities such as cafeterias/lunch/break/rest/locker rooms should be exempted except for the employees who work in those areas. While it is true that other workers may occasionally be injured in these areas, the inclusion of all injury/illness information that occurs in these areas only distorts the data. OSHA should be concerned with the accuracy of any information it requires and/or collects and should eliminate any non-relevant or extraneous information. We believe that this anomaly is easily correctable, and the result will be a more accurate assessment of hazards associated with a specific workplace (Ex. 15: 203).

OSHA does not agree with this commenter that injuries and illnesses occurring in such areas are not work-related. For example, many injuries occurring in lunch rooms involve slippery floors, which the employer can address by establishing a system for immediate spill cleanup. However, the final rule does contain an exception from recordability of cases where the employee, for example, chokes on his or her food, is burned by spilling hot coffee, etc. (see paragraph 1904.5(b)).

The United Parcel Service (UPS) recommended that OSHA craft its rule to coincide with the company's personnel records system, stating ''[t]he unit for which an employer maintains personnel records is presumptively appropriate and efficient; accordingly, OSHA should not mandate a rule that conflicts with a company's current personnel units policy'' (Ex. 15: 424). OSHA recognizes that employers would prefer OSHA to allow companies to keep records in any way they choose. However, OSHA believes that allowing each company to decide how and in what format to keep injury and illness records would erode the value of the injury and illness records in describing the safety and health experience of individual workplaces and across different workplaces and industries. OSHA has therefore decided not to adopt this approach in the final rule.

Two commenters raised the issue of centralized recordkeeping as it related to the proposed definition of establishment. The General Electric Company (GE) stated:

> [G]E does not support the redefinition of establishment to mean a single physical location that is in operation for 60 calendar days or longer. GE field staff frequently establish such establishments and the illness and injury recording and reporting for these sites has been done at central locations. The required data therefore is already collected but the new definition would substantially increase the administrative burden for employers, without providing any additional value. Currently, field employees can report an injury to one well-trained individual who is able to properly administer the program and keep all required documentation. Under this new rule, the employer would need to train a significantly greater number of employees on the proper method for recording injuries and illnesses, keeping documentation, and ensuring the submission of this information to the central office for long-term retention. Further, turnover in the field service operations necessitates an ongoing training program. GE would prefer to train field service employees on GE's

expectations for safe performance and how to perform their jobs safely, rather then training field service employees on OSHA recordkeeping regulations (Ex. 15: 349).

OSHA will continue to allow employers to keep their records centrally and on computer equipment, and nothing in the final rule would preclude such electronic centralization. OSHA believes that the definition of establishment in the final rule will have no impact on the ability of the employer to keep records centrally; however, the final rule does continue to require employers to summarize and post the records for each establishment at the end of the year.

The North Carolina Department of Labor (Ex. 15: 186) suggested that OSHA add a note cross-referencing the rule's exceptions for work relationship in parking lots, to assist readers in locating them. OSHA has not added a note to the definition but believes that the list of exceptions to the presumption of work-relationship will achieve the objective this commenter intended. In addition, OSHA has included a table showing changes from the former system to the new system in the compliance assistance and training materials it is distributing to employers and employees.

Health Care Professional

The final rule defines health care professional (HCP) as ''a physician or other state licensed health care professional whose legally permitted scope of practice (i.e. license, registration or certification) allows the professional independently to provide or be delegated the responsibility to provide some or all of the health care services described by this regulation.''

The proposed rule used the term ''health care provider,'' defined as a person operating within the scope of his or her health care license, registration or certification. The final rule uses the term ''health care professional'' to be consistent with definitions used in the medical surveillance provisions of other OSHA standards (see, *e.g.*, the methylene chloride final rule (29 CFR 1910.1052).

OSHA recognizes that injured employees may be treated by a broad range of health care practitioners, especially if the establishment is located in a rural area or if the worker is employed by a small company that does not have the means to provide on-site access to an occupational nurse or a physician. Although the rule does not specify what medical specialty or training is necessary to provide care for injured or ill employees, the rule's use of the term health care professional is intended to ensure that those professionals providing treatment and making determinations about the recordability of certain complex cases are operating within the scope of their license, as defined by the appropriate state licensing agency.

The rulemaking record reflects a wide diversity of views on this topic. Many commenters thought the proposed definition was much too broad, leaving ''[t]he door open for unqualified individuals to make medical diagnoses'' (see, *e.g.*, Exs. 15: 342, 201). Many commenters also argued that the proposed definition could be misinterpreted (see, *e.g.*, Exs. 31, 15: 131, 342, 397). Specifically, many employers thought the definition could be interpreted to permit untrained or unlicensed individuals to treat employees or to make medical diagnoses that would determine the recordability of certain an injuries or illnesses (see, *e.g.*, Exs. 15: 304, 355, 433). Additionally, some commenters interpreted the proposed definition to mean that any time an individual who was certified or trained in cardiopulmonary resuscitation (CPR) or first aid administered treatment, the case would automatically be recordable (see, *e.g.*, Exs. 15: 116, 132, 323, 341, 356). For example, the National Federation of Independent Business noted:

[u]nlike licensed practitioners, those who are registered or certified are not consistently judged against stringent objective criteria. Oftentimes registration is obtained by paying a fee and certification usually entails attending training courses on how to administer first aid. In any given place of employment it is common to find at least one employee who is trained and certified in first aid care. Simple actions on the part of such an employee could become recordable instances under this proposal. This would only serve to erroneously inflate statistics thus making the work site log an inaccurate reflection of occupational injuries and illnesses (Ex. 15: 304).

Consequently, many commenters advocated qualifying the proposed definition by limiting it to providers with specific types of training, such as licensed physicians (see, *e.g.*, Exs. 15: 42, 105) or other providers, such as dentists, psychiatrists, or clinical psychologists (see, *e.g.*, Exs. 15: 126, 312, 342, 410, 433, 443) and/or practitioners operating under their direction, such as physician assistants and nurses (see, *e.g.*, Exs. 15: 116, 131, 334, 344, 441).

Some commenters proposed eliminating the words ''registration'' and ''certification'' from the definition because these terms have different meanings in different states, and in some states, some providers can pay to be certified or registered even though their credentials are inadequate (see, *e.g.*, Exs. 15: 199, 272, 303, 375). A few commenters also noted that some registrations and certifications are given by professional associations rather than state agencies. For example, according to the American Academy of Physician Assistants:

[w]hile many health care providers receive professional certification through a private certifying body (*e.g.* board certification in cardiology for a doctor), this ''certificate'' is not automatically tied to any state recognized credential or scope of practice permitting the provision of health care services. PAs, for example, are certified by the National Commission on Certification of Physician Assistants. This certification is not synonymous with a state certificate or license. As the proposed rule is currently worded, an NCCPA-certified PA or a physician who is board certified in cardiology would qualify as a ''health care provider.'' However, OSHA would not be assured that the PA or physician was practicing medicine with a license and in compliance with their state scope of practice. Further, it would be illegal in all states for a PA or a physician to provide health care services based solely on their professional certification (Ex. 15: 81).

Still others feared that registered or certified ''alternative medicine'' providers, such as acupuncturists and massage therapists, might influence an employer's recordkeeping decision (see, *e.g.*, Exs. 15: 184, 317, 430).

The proposed definition was, however, supported by several unions, large and small employers, and professional associations representing those health care personnel who might be excluded by a more restrictive definition (see, *e.g.*, Exs. 15: 9, 72, 137, 170, 204, 278). These commenters generally advocated a broader definition because such a definition would recognize the various types of health care personnel who may be called on to attend an injured employee (see, *e.g.*, Exs. 15: 181, 350, 376, 392, 417). Typical of these comments was one from The Fertilizer Institute:

[O]SHA should not qualify and limit this definition to personnel with specific training due to the wide variation in health care support and training available throughout the country. Because not all facilities are located in large metropolitan areas where a wide variety of medical training is available, it may be difficult, if not impossible to satisfy Administration-specified minimal training (Ex. 15: 154).

These commenters did agree, however, that to ensure the availability of quality health care to employees, health care professionals must be licensed or

certified by the state(s) in which they practice and must operate within the scope of that license or certification (see, *e.g.*, Exs. 24, 15: 81, 181, 350, 417). In particular, several commenters stressed the need to define the term ''health care professional'' as one practicing ''in accordance with the laws of the applicable jurisdiction'' (Ex. 15: 409; see also Exs. 15: 308, 349).

Additionally, the AFL–CIO cautioned that using a broad definition of the term ''health care provider'' in this recordkeeping rule should not supersede or in any way affect the provisions of many OSHA health standards that specifically require a physician to perform medical surveillance of occupationally exposed employees:

[a]ll of OSHA's 6(b) health standards, except for Bloodborne Pathogens, require that the medical examinations required by the rules be carried out by a physician or under the supervision of a licensed physician. Many of these standards further require that a physician evaluate the results of the exam and provide a diagnosis and opinion as to whether any adverse medical condition has been detected. Some standards such as lead, benzene, and formaldehyde also require the physician to determine whether or not an employee should be removed from his or her job due to occupational exposures.

[In contrast], the proposed recordkeeping rule would allow diagnoses for conditions covered by these standards (*e.g.*, lead poisoning, asbestosis, byssinosis) to be made by any health care provider operating within the scope of their license. We are concerned that this discrepancy and inconsistency may lead to confusion about the requirements for medical surveillance under OSHA's health standards (Ex. 15: 418).

Therefore, the AFL–CIO recommended that OSHA insert a provision in the proposed recordkeeping rule that would ensure that it is not interpreted as superseding the requirements of those standards. OSHA shares this concern and does not intend the use of the term ''health care professional'' in this rule to modify or supersede any requirement of any other OSHA regulation or standard.

On the basis of the record, OSHA finds that there is a broad consensus among commenters that only qualified health care professionals should make diagnoses and treat injured employees, and that state licensing agencies are best suited to determine who may practice and the legal scope of that practice (see, *e.g.*, Exs. 15: 31, 65, 95, 154, 184, 201, 288, 308, 335, 349, 409, 425). The definition in the final rule ensures that, although decisions about the recordability of a particular case may be made by a wide range of health care professionals, the professionals making those decisions must be operating within the scope of their license or certification when they make such decisions.

Injury or Illness

The final rule's definition of injury or illness is based on the definitions of injury and illness used under the former recordkeeping regulation, except that it combines both definitions into a single term ''injury or illness.'' Under the final rule, an injury or illness is an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, or amputation. Illnesses include both acute and chronic illnesses, such as, but not limited to, a skin disease, respiratory disorder, or systemic poisoning. The definition also includes a note to inform employers that some injuries and illnesses are recordable and others are not, and that injuries and illnesses are recordable only if they are new, work-related cases that meet one or more of the final rule's recording criteria.

Former rule's definition. The former rule also defined these terms broadly, as did the proposal. The text of the former recordkeeping rule did not include a definition of injury or illness; instead, the definitions for these terms were found on the back of the OSHA 200 Log and in the former *Recordkeeping Guidelines* (Ex. 2, p. 37). The definition of occupational injury found in the *Guidelines* was:

Occupational injury is any injury such as a cut, fracture, sprain, amputation, etc., which results from a work accident or from an exposure involving a single incident in the work environment.

Note: Conditions resulting from animal bites, such as insect or snake bites, or from one-time exposure to chemicals are considered to be injuries.

An occupational illness was defined as:

[a]ny abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact.

The former rule's definitions of injury and illness captured a very broad range of injuries, including minor injuries such as scratches, bruises and so forth, which the employer then tested for work-relatedness and their relationship to the recording criteria. The former rule's definition of illness was even broader, including virtually any abnormal occupational condition or disorder that was not an occupational injury. However, the recording of illnesses under the former rule was more inclusive than is the case for the final rule being published today because the former rule required employers to record every occupational illness, regardless of severity. The final rule applies the same recording criteria to occupational illnesses as to occupational injuries, and thus rules out minor illnesses (see the Legal Authority section and the preamble discussion accompanying section1904.4).

The former rule's broad definition of illness was upheld in a 1989 Occupational Safety and Health Review Commission decision concerning the recording of elevated levels of lead in the blood of workers employed at a battery plant operated by the Johnson Controls Company. In that decision (OSHRC 89–2614), the Occupational Safety and Health Review Commission found that:

[a]s the Secretary states in his brief on review ''The broad applicability of the term ''illness'' adopted in the BLS Guidelines serves this purpose [to set explicit and comprehensive recording requirements designed to obtain accurate and beneficial statistics regarding the causes of occupational disease] by including health related conditions which may not look like, or may not yet be, treatable illnesses.'' Accordingly, for the purposes of the Secretary's recordkeeping regulations promulgated pursuant to sections 8(c)(1) and (2) of the Act, we accept the Secretary's interpretation of ''illness'' that includes blood lead levels at or above 50 ug/100g.

Proposed rule's definition. OSHA proposed a new, broad definition that encompassed both occupational injury and occupational illness. This approach was consistent with one of the goals of the proposal, to eliminate the distinction between injury and illness entirely for recordkeeping purposes. OSHA's proposed definition of an injury or illness was:

''Injury or illness'' is any sign, symptom, or laboratory abnormality which indicates an adverse change in an employee's anatomical, biochemical, physiological, functional, or psychological condition (61 FR 4058).

Comments on the proposed definition. Many commenters remarked that the proposed definition of injury and illness was too broad and all encompassing (see, *e.g.*, Exs. 25, 33, 15: 95, 120, 156, 174, 176, 199, 201, 213, 231, 273, 282, 301, 305, 318, 331, 346, 348, 375, 383, 386, 395, 420, 424, 425, 430). The views of the National Association of Manufacturers (NAM) are representative of this view:

[a] second option is to re-examine the scope of the proposed definition of the term ''injury or illness,'' which appears to go well beyond the normal understanding of the medical profession. That definition is so broad it includes virtually any change in the status of the employee. In contrast, Dorland's

Illustrated Medical Dictionary defines the term ''illness'' as a condition marked by ''pronounced deviation from the normal healthy state.'' Accordingly, the NAM believes the proposed definition of the term ''injury or illness'' would be far more accurate and credible if it were modified to read substantially as follows ''Any sign, symptom, or laboratory abnormality which evidences a significant adverse change in an employee's anatomical, biochemical, physiological, functional, or psychological condition, and which evidences a state of ill-health or a reasonable probability that ill-health will result (Exs. 25, 15: 305).

The American Iron and Steel Instute (AISI) also objected to the definition, stating that:

OSHA also fails to provide any guidance as to what constitutes a ''change'' in an employee's condition. If a person is tired at the end of the day, does that constitute a change in his physical condition? If a person is grumpy at the end of a long shift, has he undergone a change in his psychological condition? If a person gains weight, has his ''anatomical'' condition ''changed''? OSHA's proposed definition would force employers to address these questions but provides none of the answers. * * * Finally, in addition to inviting gross intrusions into employees' lives, the concept of an ''adverse'' psychological change is so vague and burdened with value judgments that it simply is beyond definition.

Several other commenters urged OSHA to add the word ''significant'' and the phrase ''and which evidences a state of ill-health or a reasonable probability that ill-health will result'' to the final rule's definition of injury or illness (see, *e.g.*, Exs. 15: 169, 174, 199, 282, 305, 318, 346, 348, 375, 386, 420, 425).

A number of commenters stated that they did not understand the word ''functional'' in the definition, and particularly how its meaning differs from that of the word ''physiological'' in the definition (see, *e.g.*, Exs. 15: 313, 352, 353, 424). Several commenters also suggested the deletion from the definition of an occupational injury or illness any reference to signs, symptoms or laboratory abnormalities (see, *e.g.*, Exs. 33, 15: 176, 231, 273, 301). The Pacific Maritime Association (Ex. 15: 95) suggested that OSHA delete the proposed definition of injury or illness and replace it with the following: ''[an injury or illness] is any condition diagnosed by a health care provider.'' Two commenters suggested excluding psychological conditions from the definition of injury or illness (Exs. 15: 395, 424). A discussion of mental conditions and OSHA's reasons for including them in the definition is included in the preamble discussion of work-relationship at section 1904.5, Determination of work relatedness. OSHA has decided to continue to include psychological conditions in the final rule's definition of injury and illness because many such conditions are caused, contributed to, or significantly aggravated by events or exposures in the work environment, and the Agency would be remiss if it did not collect injury and illness information about conditions of these types that meet one or more of the final rule's recording criteria.

In the final rule, OSHA has relied primarily on the former rule's concept of an abnormal condition or disorder. Although injury and illness are broadly defined, they capture only those changes that reflect an adverse change in the employee's condition that is of some significance i.e. that reach the level of an abnormal condition or disorder. For example, a mere change in mood or experiencing normal end-of-the-day tiredness would not be considered an abnormal condition or disorder. Similarly, a cut or obvious wound, breathing problems, skin rashes, blood tests with abnormal results, and the like are clearly abnormal conditions and disorders. Pain and other symptoms that are wholly subjective are also considered an abnormal condition or disorder. There is no need for the abnormal condition to include objective signs to be considered an injury or illness. However, it is important for employers to remember that identifying a workplace incident as an occupational injury or illness is only the first step in the determination an employer makes about the recordability of a given case.

OSHA finds that this definition provides an appropriate starting point for decision-making about recordability, and that the requirements for determining which cases are work-related and which are not (section 1904.5), for determining which work-related cases reflect new injuries or illnesses rather than recurrences (section 1904.6), and for determining which new, work-related cases meet one or more of the general recording criteria or the additional criteria (sections 1904.7 to 1904.12) together constitute a system that ensures that those cases that should be recorded are captured and that minor injuries and illnesses are excluded. In response to the desire of many commenters for greater clarity, OSHA has added language to the definition of injury and illness to make it clear that many injuries and illnesses are not recordable, either because they are not work-related or because they do not meet any of the final rule's recording criteria.

In general, all of those commenters who opposed the proposed definition wished OSHA to revise the definition so that it would provide an initial screening mechanism for excluding minor injuries and illnesses, even before the status of the case vis-a-vis the geographic presumption or recording criteria was assessed. OSHA recognizes that the proposed language referring to any adverse change was too broad, and has returned to the former language requiring that the change reach the ''abnormal condition'' level. OSHA recognizes that this is still a broad definition—deliberately so. After reviewing this issue thoroughly, OSHA finds that a system that initially defines injury and illness broadly and then applies a series of screening mechanisms to narrow the number of recordable incidents to those meeting OSHA and statutory criteria has several advantages. First, by being inclusive, this system avoids the problem associated with any ''narrow gate'' approach: that some cases that should be evaluated are lost even before the evaluation process begins. Second, this approach is consistent with the broad definitions of these terms that OSHA has used for more than 20 years, which means that the approach is already familiar to employers and their recordkeepers. Third, adding terminology like ''significant'' and ''reasonable probability that ill-health will result,'' as commenters suggested, would unnecessarily complicate the first step in the evaluation process.

Accordingly, the definition of injury and illness in the final rule differs from the former definition only in minor respects. The definition is based on the former rule's definitions, simply combining the separate definitions of injury and illness into a single category, to be consistent with the elimination of separate recording thresholds for occupational injuries and occupational illnesses. As discussed above, OSHA has elected to continue to use a broad definition of illness or injury. The definition in the final rule also makes it clear that each injury and illness must be evaluated for work-relatedness, to decide if it a new case, and to determine if it is recordable before a covered employer must enter the case in the OSHA recordkeeping system.

''You''

The last definition in the final rule, of the pronoun ''you,'' has been added because the final rule uses the ''you'' form of the question-and-answer plain-language format recommended in Federal plain-language guidance. ''You,'' as used in this rule, mean the employer, as that term is defined in the Act. This definition makes it clear that employers are responsible for implementing the requirements of this

final rule, as mandated by the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*)

VIII. Forms

This section of the preamble includes a copy of the final forms package. For a discussion of the contents, the old forms, the proposed forms, and comments to the proposed forms, refer to the preamble discussion of Subpart C. 1904.6 Forms. The forms fit on 11″ by 14″ legal sized paper. The forms do not appear in the **Federal Register** due to printing considerations. To obtain a copy contact OSHA's Publications Office at (202) 693–1888, order the forms from the OSHA Internet home page *(http://www.osha.gov)* or download the forms from the OSHA home page.

IX. State Plans

The 25 States and territories with their own OSHA approved occupational safety and health plans must adopt a rule comparable to the 29 CFR part 1904 recordkeeping and reporting occupational injuries and illnesses regulation being published today, with the exception of the requirements of § 1904.41 Annual OSHA Injury and Illness Survey of Ten or More Employers. These 25 States are: Alaska, Arizona, California, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming; and Connecticut and New York (for State and local Government employees only).

The former 29 CFR 1952.4 regulation required that States with approved State-Plans under section 18 of the OSH Act (29 U.S.C. 667) must adopt occupational injury and illness recording and reporting regulations which were ''substantially identical'' to those set forth in 29 CFR part 1904 because the definitions used by the Federal and State governments for recordkeeping purposes must be identical to ensure the uniformity of the collected information. In addition, former § 1952.4 provided that employer variances or exceptions to State recordkeeping or reporting requirements in a State-Plan State would be approved by the Bureau of Labor Statistics. Similarly, a State was permitted to require supplemental reporting or recordkeeping data, but that State was required to obtain approval from the Bureau of Labor Statistics to ensure that the additional data would not interfere with ''the primary uniform reporting objectives.''

The proposed revision of 29 CFR 1952.4 would have retained the same substantive requirements for the State-Plan States, but reflected the organizational shift of some recordkeeping responsibilities from the Bureau of Labor Statistics to OSHA in 1990. See also the memorandum of understanding between OSHA and BLS effective July, 1990 (Ex. 6).

OSHA received no comments directed specifically to proposed section 1952.4. Section 1952.4 of the final rule parallels the provisions of § 1904.37, State Recordkeeping Regulations, the section of the final rule implementing the requirements proposed as § 1904.14, Recordkeeping Under Approved State Plans. The discussion of the comments and OSHA's decisions on the few issues associated with this section can be found in the preamble discussion for § 1904.37, State Recordkeeping Regulations. Section 1952.4 of the final regulation differs from that of the former regulation in that (1) the final rule requires the States to consult with and obtain approval from OSHA rather than BLS when promulgating supplementary fatality, injury or illness recording and reporting requirements; (2) the final rule allows the State to grant variances from the fatality, injury and illness reporting and recording requirements for State and local governments with Federal approval; and (3) Federal OSHA rather than the BLS is responsible for issuing all private sector and federal variances from the 29 CFR part 1904 requirements.

OSHA Data Initiative Surveys

In 1997, OSHA issued a final rule at § 1904.17, OSHA Surveys of 10 or More Employers that required employers to submit occupational injury and illness data to OSHA when sent a survey form. The 1904.17 rule enabled the Agency to conduct a mandatory survey of the 1904 data, which has been named the OSHA Data Initiative. Section 1904.41 of the final rule, Annual OSHA Injury and Illness Survey of Ten or More Employers, simply carries forward the employer reporting requirements of the former § 1904.17, with only minor editorial changes.

When OSHA issued the 1997 rule, the Agency determined that the States were not required to adopt a rule comparable to the federal § 1904.17 rule (62 FR 6441). Paragraph 1952.4(d) has been added to the final rule to continue to provide the States with the flexibility to participate in the OSHA Data Initiative under the Federal requirements or the State's own regulation. At its outset, Federal OSHA conducted the OSHA data collection in all of the states, including those which administer approved State-Plans. However, in recent years, Federal OSHA has collected data only in the State-Plan States that wish to participate. For example, in 2000, the states of Oregon, South Carolina, Washington, and Wyoming elected not to participate in the annual OSHA survey and employers in those States were not surveyed. OSHA plans to continue to allow the individual States to decide, on an annual basis, whether or not they will participate in the OSHA data collection.

If a State elects to participate, the State may either adopt and enforce the requirements of section 1904.41 as an identical or more stringent State regulation, or may defer to the Federal regulation and Federal enforcement with regard to the mandatory nature of the survey. If the State defers to the Federal section 1904.41 regulation, OSHA's authority to implement the survey is not affected either by operational agreement with a State-Plan State or by the granting of final State-Plan approval under section 18(e). OSHA's authority under the Act to take appropriate enforcement action if necessary to compel responses to the survey and to ensure the accuracy of the data submitted by employers will be exercised in consultation with the State in State-Plan states.

X. Final Economic Analysis

1. Introduction

A. Background

OSHA is revising its regulation on Recording and Reporting Occupational Injuries and Illnesses, which is codified at 29 CFR part 1904. Executive Order 12866, issued by President Clinton on September 30, 1993, requires OSHA to assess the benefits and costs of regulations, and to design regulations to impose the least burden on society consistent with achieving the Agency's regulatory objective. This economic analysis, therefore, was developed to describe the potential impacts of the final revisions to 29 CFR part 1904.

The final revisions to 29 CFR part 1904 reflect the results of studies of occupational injury and illness reporting and recordkeeping. One study of the accuracy and quality of occupational safety and health statistics was conducted by the National Research Council of the National Academy of Sciences (NAS), under contract to the Bureau of Labor Statistics (BLS).[4] The NAS report focused on changes to the

[4] National Research Council of the National Academy of Sciences, *Counting Injuries and Illnesses in the Workplace: Proposal for a Better System,* 1987.

overall strategy for occupational health and safety statistics and reporting, rather than on specific methods for improving the existing recordkeeping system. Reform of the occupational health and safety recordkeeping system was also the topic of a conference convened by the Keystone Center, an independent, non-profit organization that specializes in mediating multi-party disputes in the areas of science, technology, environmental, and health concerns. The Keystone Conference brought together 46 representatives from labor unions, corporations, the health professions, government agencies, Congressional staff, and academia to engage in a year-long dialogue. The Conference's final report[5] was an important source of ideas for some of the changes being made in OSHA's final recordkeeping rule.

In 1990, the Department of Labor transferred from the Bureau of Labor Statistics (BLS) to OSHA the responsibility for developing recordkeeping regulations and their accompanying guidelines. Although BLS continues to compile occupational injury and illness statistics, OSHA determines what information needs to be recorded by employers.

This economic analysis measures the potential regulatory impacts of the final revisions to 29 CFR part 1904. Much of the data for this analysis derives from a study conducted for OSHA by Meridian Research.[6] The data in the Meridian study, however, have been updated to reflect more recent data on the numbers of establishments affected and on rates of occupational illnesses and injuries, as well as the evidence submitted to the record in the course of this rulemaking.

B. Overview of the Final Regulation

The final regulation revises an existing rule, Recording and Reporting Occupational Injuries and Illnesses (29 CFR part 1904). Specific changes include changes in coverage, editorial and formatting changes, and changes in specific provisions that affect the requirements for recording and reporting. Changes are summarized in Table X–1.

(1) Editing and Format Changes

Language and Structure of the Rule. The final regulation reflects a complete rewriting of 29 CFR part 1904. The new version of the rule is written in plain language, using a question and answer format. This style is designed to make the rule clearer, more accessible, and easier to understand. In addition, the final rule contains many questions that employers frequently ask about recordkeeping, and it provides answers to those questions. By including these questions and answers in the rule itself, OSHA has provided employers with a readily available source of information on how to record particular cases. This means that the quality of the data being recorded will be higher than was the case in the past.

TABLE X–1: CHANGES IN RECORDKEEPING REQUIREMENTS

Section of final rule	Section of former or other source	Rule change
1904.2	1904.16	Cover parts of SICs 55, 57, 59, 65, 72, 73, 83, & 84; Exempt parts of SICs 52, 54, 76, 79, & 80.
1904.5	Guidelines	Include specific exemptions from recording for certain cases, such as common cold or flu.
		Limit parking lot exemption to commuting.
		Require recording of preexisting injury or illness only if workplace exposure "significantly" aggravates the injury or illness.
1904.7	1904.12	Replace term "lost workdays" in recording criteria with "days away" or "days restricted or transferred"; count days as calendar days, rather than scheduled work days; cap count at 180 days; do not record restricted, transferred, or lost time occurring only on day of injury or illness as restricted work, job transfer, or a day away. Define routine duties for restricted work purposes as work activities done at least once per week. Define medical treatment beyond first aid to include all non-prescription drugs given at prescription strength and first and subsequent physical therapy or chiropractic treatment and to exclude use of Steri-Strips™ and hot or cold therapy.
1904.7	(New)	Narrow criteria for recording illnesses by excluding minor illnesses.
1904.8	(New)	Record all needlestick/sharps injury cases involving exposure to blood or other potentially infectious materials.
1904.10	Interpretation	Record all hearing loss cases at 10 dB shift, rather than 25 dB shift.
1904.11	Interpretation	Narrow criteria for recording positive tuberculosis test.
1904.12	1904.12	Make criteria for recording MSD cases the same as those for all other injuries and illnesses.
1904.29	1904.2	Replace old Log form with simplified Form 300.
		Require that cases be recorded within 7 calendar days rather than 6 working days.
1904.29	1904.4	Require more information on new Form 301 than on former Form 101.
1904.29	(New)	Define new category of "privacy concern cases" and require maintenance of separate, confidential list of names for such.
1904.29	(New)	Require employer to protect privacy of injured or ill workers by withholding names, with certain exceptions.
1904.32	1904.5 (New)	Post Annual Summary for 3 months rather than 1 month.
		Review records for accuracy at end of year.
		Require descriptive and statistical totals in Annual Summary.
		Require certification of accuracy of the Log by responsible company official.
1904.34	1904.11	With change of ownership, require seller to turn over OSHA records to buyer.
1904.35	(New)	Inform employees how to report injuries or illnesses to employer.
		Provide union representative access to some, but not all, Form 301 information.
1904.39	1904.8	Delete requirement for common carrier and motor vehicle incidents to be reported.

[5] Keystone Center, *Keystone National Policy Dialogue on Work-Related Illness and Injury Recording*, 1989.

[6] Meridian Research, Inc., Economic Analysis of Proposed Changes to OSHA's Recordkeeping Requirements (29 CFR 1904), 1991.

The rule also has been completely restructured. Its provisions have been put into a logical sequence, with topics addressed as an employer would encounter them when complying with the rule. The numbering of sections within 29 CFR part 1904 has been entirely revised.

The final rule includes considerable detail not found in the former rule. This detail generally reflects interpretations that OSHA has made over time. By including these in the rule itself, OSHA intends to make the rule far clearer. Interpretations and related details are formatted as check lists, for ease of interpretation.

(2) Specific Changes in Regulatory Provisions

(a) Changes in Coverage

Former rule. The former rule exempted all employers with 10 or fewer employees and all employers in specific low-hazard retail and service industry sectors from routinely keeping OSHA records. The industry exemptions were based on injury and illness data at the 2-digit SIC code level.

Final rule. The final rule continues the former rule's exemption of all employers with 10 or fewer employees from routine recordkeeping requirements. The final rule also exempts all employers in specific lower-hazard retail and service industry sectors, as the former rule did, from maintaining OSHA records routinely. The final rule exempts 3-digit SIC industries if their average lost workday injury (LWDI) rate was at or below 75% of the overall private sector LWDI average rate in the most recent BLS occupational injury and illness data.

Change. Updating the list of exempted industry categories by relying on 3-digit, rather than 2-digit, data in the final rule results in 17 formerly exempt industries being covered under the final rule (see Table X–2). Employers in 16 industries that were covered by the former rule are exempted by the final rule (see Table X–3). The exemptions in the final rule are better targeted than those in the former rule, because high-hazard 3-digit industries embedded within lower-hazard 2-digit industries are not exempted, while low-hazard 3-digit industries embedded within higher-hazard 2-digit industries are exempted. Employers in the newly covered industries will experience additional costs and benefits from these new requirements, while newly exempted employers will also experience changes in costs and benefits. These costs and benefits are quantified in this economic analysis.

(b) Changes to the OSHA Forms

Former rule. The former rule required the employer to maintain two forms, the OSHA 200 Log and Summary of Occupational Injuries and Illnesses (one form including both a Log and Summary), and the OSHA 101 Supplementary Record of Occupational Injuries and Illnesses. The employee who supervised the production of the annual summary was required to certify it.

Final rule. The final rule requires the employer to maintain up to four records: the OSHA 300 Log of Work-Related Injuries and Illnesses, the OSHA 300-A Summary of Work-Related Injuries and Illnesses, the OSHA 301 Injury and Illness Incident Report, and, if one or more employees experiences an injury or illness case classified as a ''privacy concern'' case, a confidential list of those employees. (See discussion of privacy provisions below.)

Change. The new OSHA 300 Log is smaller than the Former OSHA 200 Log, fits on legal sized pages (8 ½'' x 14''), has fewer columns and a more logical, user friendly design. Each injury and illness must be recorded within 7 calendar days, rather than the 6 working days allowed under the former rule. Although the 300 Log requires essentially the same information as the former 200 Log, it is easier to complete, which will result in cost savings for employers. These savings are quantified in this economic analysis.

The OSHA 300–A Summary Form replaces the summary portion of the former OSHA 200 Log and Summary Form. Each covered employer must complete the summary at the end of the year and post it for 3 months, while the former rule required posting for one month. The longer posting period will result in only minimal additional costs. The final rule also requires the employer to review the records at year end for accuracy before summarizing them, requires additional certification of accuracy by a company executive, and requires additional data on the average employment and hours worked at the establishment. These changes will result in higher quality data, and will also add costs for employers. These costs are quantified in this economic analysis.

The OSHA 301 Incident Report is only slightly different from the OSHA 101 Form that it replaces. Some data elements have been added to the form. In addition, the form has been redesigned to obtain better responses to the questions and to accommodate employee access to the forms while still protecting privacy (see discussion below). Costs of recording additional data elements are quantified in this economic analysis.

(c) Changes in the Recording Criteria

The final rule includes a number of changes that will affect the number of recorded cases, and thus potentially affect the costs and costs savings associated with the regulation. Some of these changes will result in more cases being recorded, as follows: (1) Changes to the definitions of medical treatment and first aid, (2) change to the criterion for recording cases of hearing loss, and (3) change to the criterion for recording needlestick and sharps injuries.

Other changes will result in fewer cases being recorded, as follows: (1) Exemptions from the requirement to consider certain cases work-related, (2) elimination of different recording criteria for injuries and illnesses, (3) changes to the requirements for recording injuries and illnesses with days away or job restriction/transfer, (4) changes to the criteria for recording cases of tuberculosis, and (5) elimination of separate recording criteria for musculoskeletal disorders.

Because the final rule makes a number of changes, some of which increase the number of recordable injuries and illnesses and some of which decrease the number of recordable cases, it is difficult to estimate the precise impact of each change. OSHA expects that these changes, with two exceptions, will generally have the effect of offsetting each other, with the result that approximately the same number of injury and illness cases will be recorded under the final rule as were recorded under the former rule. The costs and cost savings associated with each small definitional change have not been quantified in this economic analysis. However, the changes made in the recording of hearing loss cases and the recording of needlestick and sharps injury cases will result in quantifiable increases in the number of recorded injuries. The cost effects of these changes are specifically identified in this economic analysis.

OSHA recognizes that individual employers will be affected differently by the changes made in the final rule and that some employers will record more cases under the final rule while others will record fewer. OSHA also finds that the overall effect of the changes made to the final rule is to greatly ease the determination of recordability, and has quantified these cost savings in this economic analysis.

(i) Changes to the Determination of Work-Relationship

Former rule. Under the former rule, work-relationship was established if work either caused or contributed to the injury or illness, or aggravated a pre-existing condition. Injuries and illnesses that occurred on the employer's premises were presumed to be work-related, with three exceptions: cases that occurred in a parking lot or recreational facility, cases that occurred while the employee was present at the workplace as a member of the general public and not as an employee, and cases where injury or illness symptoms arose at work but were the result of a non-work-related injury or illness were not required to be recorded.

Final rule. Work relationship is established if work either caused or contributed to the injury or illness, or significantly aggravated a pre-existing condition. The final rule continues the former rule's geographic presumption of work relationship but adds several additional exceptions to the need to record cases involving: voluntary participation in wellness programs, eating and drinking food or beverages for personal consumption, intentionally self-inflicted wounds, personal grooming, or the common cold or flu. The final rule also contains an exception that limits the recording of mental illness cases.

Change. The final rule changes the requirement to record cases in which any degree of aggravation of a preexisting injury or illness has occurred; now, the work environment must have significantly aggravated a pre-existing injury or illness before the case becomes work-related. The final rule also adds several new exceptions to the geographic presumption of work relationship. Both of these changes will result in fewer cases being recorded under the final rule.

(ii) Elimination of Different Recording Criteria for Injuries and Illnesses

Former rule. Under the former rule, employers were required to record all work-related deaths, all illnesses, and injuries that resulted in days away from work, restricted work, transfer to another job, medical treatment beyond first aid, or loss of consciousness. The employer was required to decide if the case was either an injury or illness; injuries included all back cases and any case caused by an instantaneous event, while illnesses were any abnormal condition or disorder caused by a non-instantaneous event. The employer was required to record every illness case, regardless of severity.

Final rule. Under the final rule, the employer is not required to determine whether a case is an injury or illness to decide whether or not to record the case. A case is recordable if it results in death, days away from work, job restriction or transfer, medical treatment beyond first aid, loss of consciousness, or if the case is a significant injury or illness diagnosed by a physician or other licensed health care professional. Additional criteria are included for cases of hearing loss, tuberculosis, and needlestick injuries and the rule clarifies how to record musculoskeletal disorders and cases involving medical removal or work restriction under OSHA's standards.

Change. The new general recording criteria eliminate the recording of minor illness cases, which will result in fewer cases being recorded by employers, and lower costs. The new criteria for recording hearing loss and needlestick cases will increase the number of cases and the costs associated with recording.

(iii) Days Away and Job Restriction/Transfer

Former rule. Under the former rule, employers were required to record lost workday cases, which were defined as any case that resulted in days away from work and/or days of restricted work or job transfer. Restricted work included any case when because of injury or illness (1) the employee was assigned to another job on a temporary basis, (2) the employee worked at a permanent job less than full time, or (3) the employee worked at his or her permanently assigned job but could not perform his or her routine duties. Routine duties were defined as any activity the employee would be expected to perform even once during the course of the year. The employer was required to record any case that involved restricted work, even if the restriction occurred only on the day the injury or illness occurred.

Employers were also required to count days as the number of scheduled days away or restricted, i.e., to use a counting system that included only scheduled work days and excluded any days off, such as weekends and days the plant was closed.

Final Rule. The final rule continues to require employers to record cases with days away from work, restricted work or transfer to another job. For restricted work/job transfer, the final rule focuses on whether or not the employee is permitted to perform his or her routine job functions, defined as the duties he or she would have performed at least once per week before the injury or illness. If the work restriction is limited to the day of the injury or illness, and none of the other recording criteria are met, the case is not recordable.

The final rule continues to require the employer to count days away from work and days of restricted work/job transfer. However, the days are counted using calendar days, and employers may stop the count at 180 days. The employer also may stop counting restricted days if the employer permanently modifies the employee's job in a way that eliminate the routine functions the employee was restricted from performing.

Change. The final rule shifts the focus of the definition of restricted work to the routine functions of the job and away from the former rule's focus on any activity the injured or ill employee might have performed during the work year, and eliminates the requirement to record cases that involve restrictions only on the day of injury or illness. These changes will result in fewer cases being recorded, and will have the effect of reducing costs for employers.

The final rule's changes to the method of counting days, i.e., relying on calendar days instead of scheduled work days, will simplify the counting requirements and produce more reliable information on injury and illness severity. Both the change to the calendar day counting method and the capping of days away and days restricted or transferred at 180 days will have the effect of reducing costs for employers.

(iv) Changes to the Definitions of Medical Treatment and First Aid

Former rule. The former rule defined medical treatment as any treatment, other than first aid treatment, administered to injured or ill employees. Medical treatment involved the provision of medical or surgical care for injuries through the application of procedures or systematic therapeutic measures.

The former regulation defined first aid as ''any one-time treatment, and any follow up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such one-time treatment, and follow up visits for the purpose of observation are considered first aid even though provided by a physician or registered professional personnel.''

The former *Recordkeeping Guidelines* provided two lists of treatments employers could use to determine whether a particular treatment was first aid or medical treatment for recordkeeping purposes. For example, the use of prescription drugs was generally considered medical treatment, except when only a single dose was

prescribed. Physical therapy, hot or cold therapy, or soaking therapy was considered medical treatment if it was used on a second or subsequent visit to medical personnel. Treatment of any third or second degree burn was considered medical treatment. The former rule's lists provided a useful starting point for determining which treatments were first aid or medical treatment, but also caused some confusion because, if a particular treatment was not on either list, the employer was not sure how to classify the treatment.

Final rule. The final rule defines medical treatment as the management and care of a patient to combat disease or disorder. For the purposes of Part 1904, medical treatment does not include: visits to a physician or other licensed health care professional solely for observation or counseling; the conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (*e.g.*, eye drops to dilate pupils); or first aid.

The final rule then defines first aid by listing 14 first aid treatments, such as using non-prescription drugs at non-prescription strength, using bandages or butterfly bandages, using hot or cold therapy, using splints or slings to transport an accident victim, and drinking liquids for relief of heat stress.

Change. The final rule changes the definitions of which treatments are considered first aid and medical treatment. Each change will result in some change in the number of cases that are recorded, as shown in the following table.

Changes from the former rule to the final rule	Impact on number of cases recorded
Medical treatment now includes all non-prescription drugs at prescription strength and any dose of a prescription drug.	More cases
First aid now includes hot or cold therapy, regardless of how often applied.	Fewer cases
Medical treatment now includes any physical therapy/chiropractic treatment.	More cases
First aid now includes use of butterfly bandages and Steri-Strips for any purpose.	Fewer cases
Medical treatment now includes any use of oxygen.	More cases
Second degree burns are now not automatically recordable.	Fewer cases

The overall effect of the changes to the definitions of medical treatment and first aid is difficult to determine. OSHA believes that they generally offset each other, but data to confirm this are not available.

(v) Changes in the Recording of Needlestick and Sharps Injuries

Former rule. Under the former rule, an employer was required to record a needlestick or sharps injury involving human blood or other potentially infectious material if the case resulted in death, days away from work, restricted work, medical treatment beyond first aid, or loss of consciousness, or if the employee seroconverted (contracted HIV or hepatitis infection).

Final rule. Under the final rule, an employer is required to record *all* needlestick or sharps injuries involving human blood or other potentially infectious material. These cases are recorded as privacy concern cases.

Change. The final rule will require the recording of an additional estimated 501,640 needlestick and sharps injury cases. The costs associated with this change have been quantified in this economic analysis. This change will also significantly simplify recording for those employers who recorded 88,925 needlestick and sharps injuries under the former rule, resulting in cost savings for those cases. These cost savings have been quantified in this economic analysis.

(vi) Changes in the Recording of Hearing Loss

Former rule. Under OSHA's interpretations of the former rule, an employer was required to record a hearing loss of 25 decibels in one or both ears, averaged over three frequencies, compared to the employee's baseline audiogram. Work-relatedness was presumed if the employee was exposed to noise at or above an 8-hour time weighted average of 85 decibels.

Final rule. The final rule requires an employer to record any hearing loss that reaches the level of a standard threshold shift (STS), defined by the occupational noise standard as a 10 decibel shift in hearing, averaged over three frequencies, in one or both ears, compared to the employee's baseline audiogram. Work-relatedness is presumed if the employee was exposed to noise at or above an 8-hour time weighted average of 85 decibels.

The employer must check a separate box on the OSHA Log to identify hearing loss cases.

Change. The additional check box will result in improved statistical data on occupational hearing loss. The change to a more sensitive threshold (10 decibel shift rather than 25 decibel shift) for recording occupational hearing loss will result in the recording of additional cases. Based on audiometric data collected from 22 companies in SICs 20 through 29, 33, 34, 35, 39, 49, and 90, OSHA estimated that, with the new threshold, 250,000 more workers in manufacturing and 25,000 more workers elsewhere in general industry would sustain recordable hearing loss annually. The costs associated with this increase have been quantified in this economic analysis.

(vii) Changes in the Recording of Tuberculosis

Former rule. Under OSHA's interpretation of the former rule, an employer was required to record an active case of tuberculosis (TB) or a positive TB skin test. If the employee was employed in one of five high risk industries, as defined by the Centers for Disease Control and Prevention (CDC), the case was presumed to be work related.

Final rule. Under the final rule, a case of tuberculosis is recorded if the employee has active TB or has a positive skin test. The case is considered work-related if the employee has been occupationally exposed at work to another person (client, patient, co-worker) with a known, active case of tuberculosis. The employer may subsequently remove or line out the case if a medical investigation shows that the case was caused by a non-occupational exposure.

Change. The final rule eliminates the ''special industries'' presumption of work-relatedness. OSHA believes that this change will reduce the number of recorded TB cases, and thus reduce costs somewhat. However, data to estimate the cost savings associated with this change are not available.

(viii) Changes in the Recording of Musculoskeletal Disorders (MSD)

Former rule. Under the former rule, MSD cases were recorded differently based on whether they were occupational injuries or occupational illnesses. If the case was an MSD *injury,* it was recorded if it resulted in days away from work, restricted work, job transfer, or medical treatment beyond

first aid. If the case was an MSD *illness,* it was recorded if it resulted in:

(1) Objective findings:

—A diagnosis by a health care provider (carpal tunnel, tendinitis, etc.)

—Positive test results (Tinel's, Finkelstein's, Phalen's, EMG)

—Signs (redness, swelling, loss of motion, deformity)

OR

(2) Symptoms combined with days away from work, restricted work, or medical treatment beyond first aid.

Injury MSD cases were considered to be ''new cases'' if they resulted from new (additional) workplace events or exposures. Illness MSD cases were treated in the same way or were subjected to a ''30 day rule'' whereby if an ill employee did not return to the health care provider for care after 30 days the case was considered resolved. If the same employee reported later with additional MSD problems, the case was evaluated for recordability as a new illness.

Final rule. Under the final rule, MSD cases are recorded using the same criteria as those for other injuries and illnesses. Cases are recorded if they result in days away from work, restricted work/job transfer, or medical treatment beyond first aid. Recurrences are also handled just as other types of injuries and illnesses are.

The employer must check a separate box on the Log for MSD cases to permit separate data on these disorders to be collected.

Change. The final rule simplifies the recording of MSDs and collects improved statistical information on these disorders on the 300 Log. Because the final rule does not require the automatic recording of diagnosed disorders, physical signs, and positive test results, it will generally require employers to record fewer MSD cases, resulting in some cost savings. However, the magnitude of these cost savings is not known.

(d) Change in Ownership

Former rule. Under the former rule an employer who acquired a business establishment was required to retain the OSHA records of the prior owner. Each owner was responsible for the records only for that period of the year that each owned the business.

Final rule. Under the final rule, when a business establishment changes owners, each owner is responsible for the OSHA records only for that period of the year that each owned the business. The prior owner is required to transfer the records to the new owner, and the new owner is responsible for retaining those records.

Change. The final rule differs from the former rule by requiring the prior owner to transfer the records to the new owner. Any new costs imposed by this requirement are extremely small and have not been quantified in this economic analysis.

(e) Employee Involvement

Former rule. The former rule involved employees in the recordkeeping process in two ways: through posting of the annual summary of occupational injuries and illnesses for one month, and by allowing access to the OSHA 200 Log by employees, former employees, and their representatives.

Final rule. The final rule involves employees in the process to a greater extent than formerly: it requires the employer to set up a system for accepting injury and illness reports from employees and requires the employer to tell each employee how to report a work-related injury or illness. The final rule also requires the employer to post the annual summary for three months. Employees, former employees, and their representatives have the right to one free copy of the 300 Log, the injured or ill employee or a personal representative has a right to one free copy of the 301 (Incident Report) for his or her case, and authorized employee representatives have a right to one free copy of a portion of the 301 form for all injuries and illnesses at the establishment he or she represents.

Change. The final rule will improve employee reporting of work-related injuries and illnesses and allow improved access to the information in the records, including one free copy of each record requested. OSHA finds that these provisions will increase costs for employers, and these costs have been quantified in the economic analysis.

(f) Privacy Protections

Former rule. The former rule had no provisions to protect the privacy of injured or ill workers when a coworker or employee representative was allowed access to the OSHA 200 Log. The employer was required to provide the Log with names intact.

Final rule. The final rule protects the privacy of injured or ill workers when a coworker or employee representative accesses the records by prohibiting the employer from entering the employee's name for certain ''privacy concern'' cases. A separate, confidential list of case numbers and employee names must be kept for these cases. An employee representative can access only part of the information from the 301 form, and the employer must withhold the remainder of the information when providing copies. With certain exceptions, if the employer provides the information to anyone other than a government representative, an employee, a former employee, or an employee representative, the names and other personally identifying information must be removed from the forms. In addition, separation of the summary form will eliminate accidental disclosure of employee names during the posting of the summary information.

Change. The final rule protects injured or ill employees' privacy in several ways, *e.g.,* by limiting the distribution of injured or ill employees' names, by not recording the employee's name in privacy concern cases, and by providing employee representatives access to only part of the Form 301. The costs of keeping a separate, confidential list for privacy concern cases have been quantified in the economic analysis.

(g) Computerized and Centralized Records

Former rule. The former rule allowed the employer to keep the OSHA 200 Log on computer equipment or at a location other than the establishment, and required that the employer have available a copy of the Log current to within 45 calendar days. The former rule had no provisions for keeping the OSHA 101 form off site or on computer equipment.

Final rule. The final rule allows all forms to be kept on computer equipment or at an alternate location, providing the employer can produce the data when it is needed to provide access to a government inspector, employee, or an employee representative. There is no need to keep records at the establishment at all times.

Change. The final rule provides the employer with greater flexibility for keeping records on computer equipment and at off-site locations. These costs savings have been quantified in the economic analysis.

Reporting of Fatality and Catastrophe Incidents

Former rule. The former rule required the employer to report any workplace fatality, or any incident involving the hospitalization of 3 or more employees to OSHA within 8 hours.

Final rule. The final rule requires the employer to report any workplace fatality, or any incident involving the hospitalization of 3 or more employees to OSHA within 8 hours. The final rule does not require the employer to report to OSHA fatal or multiple hospitalization incidents that occur on commercial airlines, trains and buses; or fatality/catastrophe incidents from a

motor vehicle accident on a public highway.

Change. The final rule requires employers to report fewer incidents to OSHA, which will result in cost savings. These cost savings have not been quantified in the economic analysis.

(3) Qualitative Overview of Impacts

Forms

The largest impact of the final rule's revised provisions on recordkeeping at the individual establishment will be in the direction of cost savings and will come from the plain language rewriting of the rule itself and the new forms. These changes in language, organization, and format will reduce the burden on employers and recordkeepers in several ways. The clearer language and streamlining will allow the entire rule to be read more quickly and with greater comprehension. It will also be possible to obtain a good understanding of the rule in a single reading (which will be particularly helpful for establishments with very few or no recordable incidents). Finally, the organization and format make it far easier to get quick answers to specific questions, because the answers are part of the final rule itself rather than being included in a separate document, the *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (the ''Blue Book'').

2. Industry Profile

OSHA's former regulation for Recording and Reporting Occupational Injuries and Illnesses, 29 CFR part 1904, covered most industries in the economy. The principal exceptions were the finance, insurance, and real estate sector, some retail trade industries, and some service industries. This chapter describes the changes in coverage, as well as key characteristics of the industries that will be covered under the final rule.

A. Changes in Industries Covered

The former rule (with one exception) covered or exempted industries at the two-digit SIC level. The final rule fine tunes this coverage in the finance, insurance, and real estate, retail trade, and service sectors by extending coverage to some high-hazard three-digit SICs in two-digit SICs that were not covered by the former rule and exempting some low-hazard three-digit SICs in two-digit industries that were covered by the former rule. These changes, by two-digit SICs, are as follows:

Industries covered under the former rule that would continue to be covered under the final rule:[7]

Agriculture (SIC 01–02),
Forestry, and Fishing (SIC 07–09),
Oil & Gas Extraction (SIC 13),
Sulfur Mining (SIC 1479, part),
Construction (SIC 15–17),
Manufacturing (SIC 20–39),
Transportation (SIC 41–42),
United States Postal Service (SIC 43),
Public Utilities (SIC 44–49),
Wholesale Trade (SIC 50–51),
General Merchandise Stores (SIC 53),
Hotels and Other Lodging Places (SIC 70), and
Automotive Repair, Services, and Parking (SIC 75).

Industries exempted under the former rule that would continue to be exempted:

Apparel and Accessory Stores (SIC 56),
Eating and Drinking Places (SIC 58),
Depository Institutions (SIC 60),
Nondepository Institutions (SIC 61),
Security and Commodity Brokers (SIC 62),
Insurance Carriers (SIC 63),
Insurance Agents, Brokers, and Services (SIC 64),
Holding and Other Investment Offices (SIC 67),
Motion Pictures (SIC 78),
Legal Services (SIC 81),
Educational Services (SIC 82),
Membership Organizations (SIC 86),
Engineering, Accounting, Research, Management & Related Services (SIC 87), and
Services, not elsewhere classified (SIC 89).

Two-digit industries that were not covered under the former rule but will have some three-digit industries within them covered under the final rule:

Automobile Dealers (SIC 55),
Furniture Stores (SIC 57),
Miscellaneous Retail Stores (SIC 59),
Real Estate (SIC 65),
Personal Services (SIC 72),
Business Services (SIC 73),
Social Services (SIC 83), and
Museums (SIC 84).

Two-digit industries that were covered under the former rule but will have some or all three-digit industries within them exempted under the final rule:

Building Materials & Garden Supplies (SIC 52),
Food Stores (SIC 54),
Miscellaneous Repair Services (SIC 76),
Amusement and Recreation Services (SIC 79), and
Health Services (SIC 80).

Table X–2 shows the specific three-digit industries that were formerly exempted and to which the final rule will extend coverage. Table X–3 shows the specific three-digit industries that were formerly covered and which the final rule will exempt.

Exempting an industry means that employers with establishments in that industry do not have to keep the OSHA Form 300 (the Log of Occupational Injuries and Illnesses), the Annual Summary (OSHA 300-A), and OSHA Form 301 (the Incident Record) or their equivalents. The final rule does not exempt establishments from the obligation to report fatalities or multiple hospitalization accidents to OSHA, nor does it exempt an employer from the requirement to maintain records if notified by the Bureau of Labor Statistics that it is a participant in the annual Occupational Injuries and Illnesses Survey or by OSHA that it has been selected to report under the OSHA Data Initiative.

B. Characteristics of Covered Establishments

(1) Number of Establishments

Table X–4 shows the estimated number of establishments, by industry, covered by the final regulation. Data for agriculture (SICs 01 and 02) are taken from the 1997 Census of Agriculture. Data for the remaining SICs are taken from a compilation of 1996 data by the U.S. Census Bureau for the Small Business Administration (SBA) to reflect parent company control of establishments. Firms that have 10 or fewer employees,[8] which are exempt from the final regulation because of their size, are excluded from Table X–4.

[7] In addition, state and local government employers will continue to be covered in State Plan states.

[8] The SBA data have size classes of 5–9 employees and 10–19 employees. Establishments with 10 employees were assumed to account for ten percent of the 10–19-employee size class. Since the distribution is skewed by size, rather than being uniform, this assumption slightly overstates the number of establishments covered by the regulation.

TABLE X–2.—FORMERLY EXEMPT INDUSTRIES THAT THE FINAL RECORDKEEPING RULE COVERS

Two-digit industry*	Three-digit industry that OSHA's final rule covers
SIC 55	SIC 553, Auto and Home Supply Stores
	SIC 555, Boat Dealers
	SIC 556, Recreational Vehicle Dealers
SIC 57	SIC 571, Home Furniture and Furnishings Stores
	SIC 572, Household Appliance Stores
SIC 59	SIC 593, Used Merchandise Stores
	SIC 596, Nonstore Retailers
	SIC 598, Fuel Dealers
SIC 65	SIC 651, Real Estate Operators and Lessors
	SIC 655, Subdividers and Developers
SIC 72	SIC 721, Laundry, Cleaning, and Garment Service
SIC 73	SIC 734, Services to Buildings
	SIC 735, Miscellaneous Equipment Rental/Leasing
	SIC 736, Personnel
SIC 83	SIC 833, Job Training and Related Services
	SIC 836, Residential Care
SIC 84	SIC 842, Botanical and Zoological Gardens

* Only the 3-digit SICs shown in the second column are covered by the rule; those within the 2-digit SIC that are not listed are still exempt from the requirement to keep OSHA records routinely.

TABLE X–3.—FORMERLY COVERED INDUSTRIES EXEMPTED BY THE FINAL RULE

Two-digit industry	Three-digit industry that OSHA's final rule exempts
SIC 52	SIC 525, Hardware Stores
SIC 54	SIC 542, Meat and Fish Markets
	SIC 544, Candy, Nut, and Confectionery Stores
	SIC 545, Dairy Product Stores
	SIC 546, Retail Bakeries
	SIC 549, Miscellaneous Food Stores
SIC 76	SIC 764, Reupholstry and Furniture Repair
SIC 79	SIC 791, Dance Studios, Schools, and Halls
	SIC 792, Producers, Orchestras, and Entertainers
	SIC 793, Bowling Centers
SIC 80	SIC 801, Offices and Clinics of Medical Doctors
	SIC 802, Offices and Clinics of Dentists
	SIC 803, Offices of Osteopathic Physicians
	SIC 804, Offices of Other Health Practitioners
	SIC 807, Medical and Dental Laboratories
	SIC 809, Health and Allied Services, nec

TABLE X–4—ESTABLISHMENTS REQUIRED BY THE FINAL RULE ROUTINELY TO KEEP OCCUPATIONAL INJURY/ILLNESS RECORDS

Industry establishments		Estimated number of establishments required to keep records	Estimated number of recordable cases annually in these
Agricultural Production	SIC 01–02	56,367	46,770
Agricultural Svcs, Forestry, Fishing	SIC 07–09	16,271	54,022
Oil and Gas Extraction	SIC 13	5,367	13,851
Construction	SIC 15–17	114,470	415,500
Manufacturing	SIC 20–39	196,643	2,060,900
Transportation, Postal, Utilities	SIC 41–49	157,390	516,653
Wholesale Trade	SIC 50–51	219,678	403,240
Building Materials/Garden Supplies	SIC 52[a]	22,339	56,091
General Merchandise Stores	SIC 53	28,519	180,909
Food Stores	SIC 54[b]	64,443	126,780
Automotive Dealers	SIC 55[c]	23,342	22,662
Furniture Stores	SIC 57[d]	25,580	24,302
Miscellaneous Retail Stores	SIC 59[e]	19,913	23,750
Real Estate	SIC 65[f]	17,925	22,702
Hotels and Other Lodging Places	SIC 70	23,956	103,423
Personal Services	SIC 72[g]	14,768	18,072
Business Services	SIC 73[h]	51,525	58,659
Automotive Repair, Svcs, Parking	SIC 75	41,575	40,359
Miscellaneous Repair Services	SIC 76[i]	12,294	17,686
Amusement and Recreation Services	SIC 79[j]	20,602	79,623

TABLE X–4—ESTABLISHMENTS REQUIRED BY THE FINAL RULE ROUTINELY TO KEEP OCCUPATIONAL INJURY/ILLNESS RECORDS—Continued

Industry establishments		Estimated number of establishments required to keep records	Estimated number of recordable cases annually in these
Health Services	SIC 80[k]	38,996	995,122[l]
Social Services	SIC 83[m]	25,998	25,349
Museums	SIC 84[n]	236	2,408
State and Local Government Employers in State Plan States		167,788	519,646
TOTAL: Final Rule[o]		1,365,985	5,828,477
TOTAL: Former Rule[o]		1,306,418	4,907,081

[a] Consists of Lumber & Other Building Materials (SIC 521); Paint, Glass, & Wallpaper Stores (SIC 523); Retail Nurseries & Garden Stores (SIC 526); and Mobile Home Dealers (SIC 527).
[b] Consists of Grocery Stores (SIC 541) and Fruit and Vegetable Markets (SIC 543).
[c] Consists of Auto and Home Supply Stores (SIC 553); Boat Dealers (SIC 555); and Recreational Vehicle Dealers (SIC 556).
[d] Consists of Furniture & Homefurnishings Stores (SIC 571) and Household Appliance Stores (SIC 572).
[e] Consists of Used Merchandise Stores (SIC 593); Nonstore Retailers (SIC 596); and Fuel Dealers (SIC 598).
[f] Consists of Real Estate Operators and Lessors (SIC 651) and Subdividers and Developers (SIC 655).
[g] Consists of Laundry, Cleaning, and Garment Services (SIC 721).
[h] Consists of Services to Buildings (SIC 734); Miscellaneous Equipment Rental and Leasing (SIC 735); and Personnel Supply Services (SIC 736).
[i] Consists of Electrical Repair Shops (SIC 762); Watch, Clock and Jewelry Repair (SIC 763); and Miscellaneous Repair Shops (SIC 769).
[j] Consists of Commercial Sports (SIC 794) and Miscellaneous Amusement & Recreation Services (SIC 799).
[k] Consists of Nursing and Personal Care Facilities (SIC 805); Hospitals (SIC 806); and Home Health Care Services (SIC 808).
[l] Includes estimated 501,640 needlesticks and sharps not now recordable that are covered by the final rule.
[m] Consists of Job Training and Related Services (SIC 833) and Residential Care (SIC 836).
[n] Consists of Botanical and Zoological Gardens (SIC 842).
[o] Sulfur mining (part of SIC 1479) is excluded because information is not available.
Sources: U.S. Census Bureau compilation of 1996 establishment and employment data by parent firm, performed for the Small Business Administration; Bureau of Labor Statistics 1998 Survey of Occupational Injuries and Illnesses.

The final regulation covers an estimated total of 1,365,985 establishments belonging to 699,712 employers. The number of establishments covered by the rule represents a net increase of 4.6 percent over the 1,306,418 establishments covered by the former regulation. This increase in the number of establishments covered results from the changes made to the scope of the final rule.

(2) Number of Recordable Cases

Table X–4 also shows the number of recordable cases of occupational injury and illness, by industry, covered by the final regulation. These are taken from unpublished data from the 1998 BLS Survey of Occupational Injury and Illness.

The final regulation will annually capture an estimated total of 5,828,477 occupational injury and illness cases. Of these cases, 275,000 represent additional hearing loss cases and 501,640 represent additional needlestick and sharps injuries anticipated to occur in SIC 80. The needlestick and sharps number represents 85 percent of the estimated 590,165 needlestick and sharps injuries occurring in SIC 80 (63 FR 48250, September 9, 1998; Ex. 3–172V, Docket No. H370A), since OSHA estimates that approximately 15 percent of such injuries were being recorded under the former rule. Since not all of SIC 80 is covered by the final rule, this figure is likely to overstate the number of recordable cases to some extent.

Exclusive of the 275,000 additional hearing loss cases and the 501,640 additional needlestick and sharps injuries, the final regulation will capture an estimated 5,051,837 cases annually. This is an increase of 3 percent over the 4,907,081 cases captured by the former rule. This increase in capture reflects changes in the scope of the rule that are designed to target the regulation more precisely to high-risk industries in the retail and service sectors of the economy. This increase in the rule's capture efficiency, or cost-effectiveness, is reflected by the fact that the industries that are newly covered under the final rule average 2.6 times as many cases per covered establishment as the industries the final rule would newly exempt.

3. Costs

A. Overview of the Analysis

(1) Background

This chapter assesses the changes in compliance costs associated with the changes the Occupational Safety and Health Administration (OSHA) is making to 29 CFR part 1904, the Agency's Recording and Reporting Occupational Injuries and Illnesses rule, and its associated forms and instructions. The analysis relies in part on methodology and estimates provided in a study conducted for OSHA by Meridian Research, Inc. The Meridian analysis has been updated to reflect more recent data as well as changes that OSHA has made to the regulation in the interval since the Meridian report was prepared, and to reflect comments on the proposed rule.

The great majority of the establishments covered by the rule are small, i.e., have fewer than 20 employees. On average, a covered establishment records 4 occupational injury and illness cases per year, and the recordkeeping decisions involved in these cases are generally straightforward and easy to make (*e.g.*, the injuries involve lacerations, slips and falls, or fractures). Unlike other OSHA rules, the recordkeeping rule does not require employers to implement engineering controls, change employee work practices, provide protective equipment, or take other costly actions to protect their employees' safety and health. Instead, the costs of this rule are based on the costs associated with the time the recordkeeper and others spend in maintaining the records and overseeing the recordkeeping system. OSHA's estimates of the time necessary to perform each step of the recordkeeping process, including the time to consider and record each case, maintain the Log, and perform other recordkeeping tasks, have been reviewed and commented on

by the public and approved by the Office of Management and Budget in connection with the process required by the Paperwork Reduction Act of 1995. Even if OSHA's estimates of the time involved in making, determining, and overseeing the records involved in the recordkeeping system are low, for example, by a factor of two or so, the costs imposed by the final rule are low in comparison with the benefits of the system and are readily affordable by covered establishments. (See the Impacts section of this economic analysis.)

Because the final regulation makes a number of changes, some of which increase the amount of information employers must maintain and others that simplify recordkeeping and reduce the burden, it is difficult to estimate the precise impact of a given change on establishments in particular industries. Moreover, most individual changes have only a minor impact on burdens, whether positive or negative. Accordingly, the analysis groups together changes to a specific portion of the recordkeeping activities, such as maintaining the Log or filling out the individual report of injury, and (for the most part) assesses the net impact of the group of provisions, rather than the impact of each provision individually.

The analysis reflects the fact that the final regulation is a revision of a former regulation. Thus many of the impacts are changes in the burden of doing something that is already required. Wherever this is the case, the burden under the former and final regulations will be the same if the activities are unchanged. In addition, small changes in burden estimates, both positive and negative, may offset each other.

(2) Analytical Approach

Scope. The costs of the final rule depend in part on the scope of the rule, i.e., on the industries that are covered. As noted in Chapter II, affected industries fall into three groups, depending on their inclusion or exemption under the former and final rules. Impacts differ for each of these three groups:

—For industries covered under the former rule and the final rule, impacts are the costs employers will incur to comply with changes made in a regulatory provision.

—For industries covered by the former rule but exempted under the final rule, impacts consist of cost savings equal to the cost of compliance employers incurred under the former rule.

—For industries exempted under the former rule but covered by the final rule, impacts are the total cost of compliance employers will incur under the final rule.

In examining the costs of this rule, it is critical to remember certain basic characteristics of affected facilities. On average, facilities subject to recordkeeping have about 50 employees and record about four injuries and illnesses a year. Because the size distribution of facilities is somewhat skewed, the majority of establishments record fewer than four injuries and illnesses a year and have fewer than 20 employees. Some commenters appeared to be unaware of the small number of injuries and illnesses recorded by the typical affected establishment when commenting on the proposal. For example, the comment of one commenter that the typical establishment will need to train 2 to 4 recordkeepers (Ex. 15–375) is clearly not reasonable because the typical establishment covered by this rule employs about 50 employees and records a total of four injuries and illnesses a year.

The impacts of changes in specific regulatory provisions are generally related to one of two factors:

• Costs that are essentially fixed costs for an establishment are estimated on a per-establishment basis and multiplied by the number of affected establishments.

• Costs that vary with the number of cases recorded are estimated on a per-case-recorded basis and multiplied by the number of such cases recorded.

Other Parameters. Burdens are estimated as number of minutes (per establishment or per case) to comply with each provision. Most of the costs are based on the assumption that recordkeeping tasks will be conducted by someone with the skill level of a personnel specialist who would be qualified both to obtain and to enter the necessary data. The wage rate for a Personnel Training and Labor Relations Specialist—$19.03, or $26.32 including fringe benefits [9]—is used for this cost. Where the time of a company official is called upon, the estimated labor cost is based on the hourly rate for an Industrial Production Manager—$26.38, or $36.48 including fringe benefits.

Cost estimates for many specific tasks are also influenced by the fact that almost all establishments will also have to gather information on work-related injuries and illnesses for insurance and workers' compensation purposes. In many cases, the data that employers must collect and provide for these purposes are considerably more detailed than those required by OSHA. Even OSHA recordable injuries and illnesses that turn out, in the end, not to be workers' compensation claims are likely to be investigated to determine their status in relation to the workers' compensation system. As a result, much of the basic data gathering necessary to the recording of injuries and illnesses has already been done independent of the OSHA recordkeeping requirements, and, in most cases, making the OSHA record simply involves copying information from other sources to the OSHA form.

(3) Overview of Estimates

The estimated net impact of the revisions to the recordkeeping rule is a cost of $38.6 million per year. Estimated net costs for establishments covered by the former rule that will continue to be covered by the final rule are relatively minor, and the estimated 119,720 establishments that OSHA has exempted from the final rule will incur substantial savings. The chief cost increases will be to the 179,287 establishments brought under the scope of OSHA's recordkeeping rule for the first time.

B. Initial Costs of Learning the Recordkeeping System

(1) Initial Costs to Establishments Already Covered of Becoming Familiar With the Revised Recordkeeping System

Recordkeepers in establishments that were covered by the former regulation and that will continue to be covered under the final regulation will need to become familiar with the changes in the recordkeeping system associated with the final rule even before an injury or illness occurs. OSHA originally estimated that this initial familiarization would require 15 minutes per such establishment. Some commenters objected to this estimate as too low. (See, for example, Exs. 15: 119, 15: 357, 15: 375, 15: 395.) For example, one commenter (Ex. 15: 395) stated that ''No person could give even a superficial reading to this material [the proposed rule] in 15 minutes.'' Another commenter (Ex. 15: 375) stated that this was ''not enough time for one person to even read through the rule and the preamble one time.'' OSHA does not believe that experienced recordkeepers will need to read the entire preamble, or even the entire rule, in order to familiarize themselves with the new recordkeeping changes. For the most part, the new system continues the concepts, practices, and interpretations developed under the former rule and

[9] Benefits and overhead are computed at 38.3 percent of the hourly wage.

thus is well known to recordkeepers. OSHA believes that most recordkeepers will avail themselves of the summaries of the changes in the rule provided by OSHA or by a wide variety of other sources. The recordkeepers' thorough knowledge of the recordkeeping system will suffice to cover most aspects of the rule. Nor does OSHA agree that the typical recordkeeper, who needs to record only 4 injuries and/or illnesses a year, needs to study every change. For example, a recordkeeper relying on OSHA's summary information on the differences between the former and the revised rule only needs to make a mental note to the effect that injuries and illnesses occurring in parking lots are treated differently under the revised rule, but would not have to know the details of the changes until (if ever) the recordkeeper actually has an injury or illness that occurred in a parking lot. Nevertheless, as a result of the comments received on the prior proposed time estimates, OSHA has raised its familiarization estimate to 20 minutes per establishment for facilities with prior OSHA recordkeeping experience. This estimate covers the time needed for an experienced recordkeeper to learn the basics of the new system, but assumes that such a recordkeeper, who records an average of four cases per year, need not learn the details of the system for dealing with unusual cases until, and if, they arise; instead, this recordkeeper is assumed to examine specific issues later and as needed, when issues arise in the course of the recording of actual cases. The time attributed in this analysis to the recording of individual cases (discussed below) includes the time needed to understand the details of the individual case. It is assumed that this subsequent learning will occur as recordkeepers enter the data; that is, the time that OSHA estimates will be initially required to complete both Form 300 and Form 301 entries includes the time that the Agency estimates will be needed for additional familiarization with issues related to the entry being made. The costs for this subsequent recording activity are discussed in Part D of this section of the economic analysis. The initial familiarization cost is a one-time cost that will not recur. Accordingly, this cost was annualized over ten years using a 7 percent discount rate. The net annualized costs of this initial familiarization activity are $1,482,384.[10]

(2) Costs of Learning the Basics of the Recordkeeping System *De Novo*

Establishments required to keep OSHA records will incur the costs associated with learning about the recordkeeping system from scratch whenever a new person takes over the recordkeeping job as a result of staff turnover. OSHA assumes that 20 percent of covered establishments will experience such staff turnover in any given year. Establishments that are newly covered by the regulation will also incur the costs of learning the recordkeeping system *de novo.* Establishments that are newly exempted under the regulation, of course, will save the staff turnover costs formerly associated with recordkeeping.

At the time of the proposal, OSHA estimated that, under the former regulation, new personnel would require a 30-minute orientation to learn the basics of the recordkeeping system and 25 minutes to learn the newer, simpler recordkeeping system. Many commenters believed that these estimates were too low. (See, for example, Exs. 15: 119, 15: 170, 15: 357, 15: 375.) After reviewing the record, OSHA agrees that the estimates in the Preliminary Economic Analysis did not adequately capture the average amount of time required to learn the system for a person without previous knowledge of OSHA recordkeeping. OSHA has revised its average estimate of the time for learning the new recordkeeping system *de novo* to one hour and has revised the average estimate of the time it would have taken a recordkeeper to learn the previous recordkeeping system to 1.5 hours. (In other words, OSHA believes that its prior estimate of the average amount of time required to learn the former recordkeeping system—30 minutes—was too low.)

Although OSHA's revised average estimates are lower than the estimates made by some commenters, OSHA believes that the Agency's estimates appropriately reflect the average amount of time new recordkeepers will need to learn the basics of the system. Again, new recordkeepers are assumed not to learn all the details of the new system up front, such as exactly when an off-site injury is considered work-related or how to classify injuries occurring in lunch rooms, until such a case actually arises in the workplace. Since unusual cases and those falling within the exceptions are relatively rare, recordkeepers will generally choose to obtain detailed case-specific information only when it is needed. New recordkeepers need only to know that such exceptions exist and that further study of the rule will be necessary in the relatively unlikely event that such an injury or illness occurs. OSHA's estimates of the time required to record each case (discussed further below) include the time for the recordkeeper to study the instructions to learn how to address specific issues that may arise when recording specific types of injuries or illnesses (*e.g.*, noise-induced hearing loss or work-related TB cases).

OSHA believes that the new system is much simpler than the old. Many simplifications, *e.g.*, the use of calendar days, capping of days away cases, have been made to the rule to save effort. This additional simplicity, as well as improved outreach materials to explain the new regulation, will, OSHA believes, result in significantly reducing the length of time required to learn the system. OSHA estimates that learning the basics will take, on average, one hour. This will save 30 minutes compared to the learning time that would have been required for the former system.

Continuously Covered Establishments. Establishments that were covered under the former regulation and continue to be covered under the final regulation will save 30 minutes, compared with the time needed under the former rule, whenever staff turnover requires a new recordkeeper. At a 20 percent turnover rate, the net annualized savings for this learning activity under the final rule are $3,123,394.[11]

Newly Exempted Establishments. Establishments that were covered under the former regulation but are exempted under the final regulation will incur a saving of 90 minutes whenever staff turnover would have required a new recordkeeper. At a 20 percent turnover rate, the net annualized savings of eliminating the need for this learning activity are $945,309.[12]

Newly Covered Establishments. Establishments that were exempt under the former regulation but are covered under the final regulation will incur two types of costs: All establishments will incur an initial learning cost of one hour per establishment. Since this is a one-time cost that will not recur, the cost was annualized over ten years using a 7 percent discount rate. In addition, these establishments will incur an ongoing cost of 60 minutes whenever staff turnover requires a new recordkeeper to become familiar with the system. The net annualized costs of this learning activity are $671,856 + $943,756 = $1,615,612.[13]

[10] $1,482,384 = (1,186,698 Establishments) × (20 Minutes/Establishment) × ($26.32/Hr.) × [0.07/(1 − (1/(1.07)^{10}))]

[11] $3,123,394 = (1,186,698 Establishments) × (0.2) × (30 Minutes/Establishment) × ($26.32/Hour)

[12] $945,309 = (119,720 Establishments) × (0.2) × (90 Minutes/Establishment) × ($26.32/Hour)

[13] $1,615,612 = (179,287 Establishments) × (60 Minutes/Establishment) × ($26.32/Hour) × [0.07/(1 − (1/(1.07)^{10}))] + (179,287 Establishments) × (0.2) × (60 Minutes/Establishment) × ($26.32/Hour)

(3) Total Cost Impact

Table X–5 summarizes the total annualized cost impacts of initially learning the recordkeeping system under the final regulation. The total net annualized impact is estimated to be a saving of $970,757.

C. Fixed Costs of Recordkeeping

A number of the cost items associated with the final rule do not vary with the size of the establishment or the number of cases reported. These include the costs of setting up the Log, posting the Summary, certifying the Summary, and providing data from the Log to OSHA inspectors. Impacts in this category are related to the number of establishments covered and the specific changes in recordkeeping requirements.

TABLE X–5—FAMILIARIZATION COSTS ASSOCIATED WITH THE FINAL RULE

Cost element/industry status under the final rule	Estimated number of establishments	Change in level of effort		Total cost
		(Minutes)	Hours	
Shift to the New Recordkeeping System:				
Formerly & Still Covered	1,186,698	20	395,566	[a,b]$1,482,384
Initally Learn the Basics of the Recordkeeping System:				
Newly Covered	179,287	60	179,287	[a,b]671,856
Re-learn the Basics of the Recordkeeping System:				
Formerly & Still Covered	237,340	−30	-118,670	[a] −3,123,394
Newly Exempted	23,944	−90	−35,916	[a] −945,309
Newly Covered	35,857	60	35,857	[a]943,756
Total Annual Cost			[c]456,124	970,757

[a] Based on an hourly cost of $26.32.
[b] One-time cost that is annualized over 10 years at a discount rate of 7 percent.
[c] Includes 574,853 hours that will be required in the first year only.

(1) Setting Up the Log and Posting the Summary

Both the former rule and the final rule require that the Log be set up at the beginning of the year and that the Annual Summary be posted on February 1 of the year following the year to which the data pertain. The final regulation requires that the Summary remain posted for three months, while the former regulation required that it remain posted for only one month.

OSHA estimates that the process of setting up the Log and filling out and posting the Summary under the former regulation required 8 minutes. OSHA has no reason to believe that this burden will change as a result of the final rule. Most of the concern expressed in the comments on the proposed recordkeeping rule related to the burden commenters perceived to be associated with updating the posted Summary form when revisions were made and mailing out the Summary as an alternative to posting (see, *e.g.*, Exs. 15: 288, 303, 395). Updating the posted Summary was never OSHA's intent, and the final rule has dropped the mailing alternative, so that both of these concerns are now moot. Any possible increase in burden due to the longer posting periods for the Summary (posting for 3 months rather than 1 month) should be offset by greater simplicity in keeping the Log using the new forms.

The final rule's changes in posting requirements will have no impact on establishments that were covered under the former rule and will be covered under the final rule. Establishments that are newly exempted by the final rule will have an annual savings of 8 minutes each, however. Establishments that are newly covered will incur an annual cost of 8 minutes each. The total estimated impact of these changes in scope is a net cost of −$420,146 + $629,180 = $209,034.[14]

(2) The Annual Summary

The final rule adds a requirement for employers to record on the Log Summary the average number of employees working in the establishment over the past year and the total hours worked by all employees during that year. OSHA initially estimated that recording these data on the Summary would add 5 minutes of labor per establishment to the cost of maintaining each Log. Many commenters noted that this step might be difficult, and some stated that it might be more time consuming than estimated. (See, *e.g.*, Ex. 15: 170.) One commenter stated that this information was sufficiently valuable for management purposes that firms would benefit from having the data if they did not already compile these data (Ex. 15: 395). The commenters who argued that this requirement would be burdensome were generally large multi-establishment firms (see, *e.g.*, Exs. 15: 218, 15: 423). Since OSHA's estimate of this cost is per establishment, these firms would indeed bear higher costs. OSHA does not believe that this requirement will necessitate modifications to data systems for the vast majority of firms; finding where the data are on existing systems should suffice. OSHA also believes that the final rule has clarified that the average number of employees and hours worked need not be precise and can simply be an estimate, which should reduce the amount of effort required to generate this number. The Agency thus finds that this procedure will be relatively simple for most single-establishment firms that maintain personnel records that already have this information for a variety of other purposes. However, OSHA also recognizes that firms with more than one establishment may keep this information only on a firm, not establishment, basis, and may need to perform calculations to compile or revise the data available from their management systems. To account for this, OSHA has raised its average estimate of the time required for the additional information to 20 minutes.

This burden is estimated to fall on all establishments covered by the rule, but not on newly exempted establishments. The total estimated cost of this additional data requirement is $10,411,297 + $1,572,936 = $11,984,233.[15]

The former rule required the recordkeeper to certify that the entries on the Summary were true, accurate, and complete. The final rule requires a company executive to certify that he or she has examined this document and ''reasonably believes, based on his or her knowledge of the process by which the information was recorded, that the annual summary is correct and complete.''

OSHA estimated, at the time of the proposal, that the former requirement that the recordkeeper certify the Summary cost an average of 2 minutes, because all the recordkeeper had to do was sign the form. The final rule drops the requirement for recordkeeper certification.

Having the Summary certified by a company executive was estimated at the time of the proposal to require only 5 minutes.[16] OSHA now estimates that certification by a

[14] $209,034 = (−119,720 + 179,287 Establishments) × (8 Minutes/Establishment) × ($26.32/Hour)

[15] $11,984,233 = (1,186,698 + 179,287 Establishments) × (20 Minutes/Establishment) × ($26.32/Hour)

[16] The proposal would have replaced certification by the recordkeeper with certification by a plant manager. Many commenters stated that this would have required the plant to become personally familiar with the information being certified, and that this would have entailed considerably more time than 5 minutes (see, *e.g.*, Exs. 15–9, 15–355, 15–428, 15–395).

company executive will require 30 minutes, because the Agency believes that the company executive will briefly review the records, perhaps speak with the recordkeeper, and generally take whatever steps are necessary to assure himself/herself that the records are accurate. Although, as noted above, the typical firm covered by the rule only records 4 cases per year and these cases are generally straightforward, OSHA believes that the certifying executive will need this amount of time, on average, to perform this task thoughtfully. Again, this estimate is an average estimate—it will take longer for some very large firms and less time for small firms. Estimated impacts on the different classes of establishments are as follows:

Continuously Covered Establishments. Establishments that were covered by the former rule and will be covered by the final regulation will save the costs for certification by the recordkeeper, but will incur new costs for certification by a responsible company official. This change in requirements results in an estimated total annual cost of $20,604,232.[17]

Newly Exempted Establishments. Establishments that were covered by the former regulation but are exempted from the final regulation will realize a cost saving of 2 minutes of recordkeeper time. The estimated total annual savings will be $105,043.[18]

Newly Covered Establishments. Establishments that were exempt under the former regulation but are covered by the final regulation will incur costs of 30 minutes of company official time. The total annual cost is estimated to be $3,270,213.[19]

The total impact of the final rule's certification requirement is estimated to be $23,769,204.

(3) Provision of Data to OSHA Inspectors

Like the former rule, the final rule requires employers to provide the Log and Incident Reports to an OSHA inspector during a compliance visit. Employers are now required by the final rule to provide a copy of these forms to the inspector on request. OSHA believes that providing copies has in fact been the practice in the past, even though the former rule did not spell this out specifically. OSHA thus does not believe that this small change in the regulation will result in burdens or costs for employers.

(4) Informing Employees How To Report Occupational Injuries and Illnesses

The final regulation requires employers to set up a way for employees to report work-related injuries and illnesses and inform employees about the approach they have chosen. OSHA assumes that it will take a Personnel Training and Labor Relations Specialist (or equivalent) at each establishment an average of twenty minutes to decide on a system and inform employees of it. The ''way'' will usually simply involve directing supervisors to inform their subordinates, as part of their usual communication with them, to report work-related injuries and illnesses to their supervisor. Most, if not all, establishments require employees routinely to report problems of any kind to their supervisors, and reporting injuries and illnesses is simply one of the kinds of things employees report. OSHA believes there will be no additional cost associated with the supervisors' forwarding of these reports to the person in charge of recordkeeping, because this is already part of supervisors' duties. This is a one-time cost, which OSHA has annualized over ten years using a 7 percent discount rate. The net annualized costs of setting up the system are $1,706,285.[20]

(5) Total Cost Impact

Table X–6 summarizes the total annualized cost impacts of fixed, establishment-level costs resulting from the final regulation. The total net annualized costs are estimated to be $37,668,954.

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[17] $20,604,232=(1,186,698 Establishments) × (−2 Minutes/Establishment) × ($26.32/Hour) + (30 Minutes/Establishment) × ($36.48/Hour)

[18] $105,043=(119,720 Establishments) × (2 Minutes/Establishment) × ($26.32/Hour)

[19] $3,270,213=(179,287 Establishments) × (30 Minutes/Establishment) × ($36.28/Hour)

[20] $1,706,285=(1,365,985 Establishment) × (20 Minutes/Establishment) × ($26.32/Hr.) × [0.07/(1 − (1/(1.07)^{10}))]

TABLE X-6
FIXED ANNUAL COSTS TO ESTABLISHMENTS

Cost Element/ Industry Status under Final Rule	Estimated Number of Establishments	Change in Level of Effort (Minutes)	Total Hours	Total Cost
Set Up Log and Post Summary				
Newly Exempted	119,720	- 8	- 15,963	-$ 420,146[a]
Newly Covered	179,287	8	23,905	$ 629,180[a]
Additional Data Requirements on Summary				
Formerly & Still Covered	1,186,698	20	395,566	$10,411,297[a]
Newly Covered	179,287	20	59,762	$ 1,572,936[a]
Certification of Summary				
Formerly & Still Covered	1,186,698	- 2	- 39,557	$ 1,041,140[a]
		30	593,349	$21,645,372[b]
Newly Exempted	119,720	- 2	- 3,991	- $ 105,043[a]
Newly Covered	179,287	30	89,644	$ 3,270,213[b]
Way to Inform Employees	1,365,985	20	455,328	$ 1,706,285 [a,c]
TOTAL ANNUAL COST			1,588,043[d]	$37,668,954

[a] Based on an hourly cost of $26.32.

[b] Based on an hourly cost of $36.48.

[c] One-time cost that is annualized over 10 years at a discount rate of 7 percent.

[d] Includes 227,664 hours that will be required in the first year only.

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D. Costs of Maintaining Records

The costs of maintaining the Log and Incident Reports are related to the number of cases recorded. There are numerous changes to the final rule that result in very small increases or decreases in the number of cases that will need to be recorded. With two exceptions, OSHA concludes that the average establishment keeping records under both the former rule and the final rule will experience an overall decrease in the number of occupational injury and illness cases entered into its OSHA records. These decreases will result from the addition of several exemptions to the presumption of work-relatedness for cases occurring in the work environment and from definitional changes (*e.g.*, medical treatment, first aid, restricted work, aggravation) that will make fewer cases recordable. However, for this analysis, OSHA makes the conservative assumption that these will net out to a zero change. This assumption means that the costs presented in this economic analysis are somewhat overstated.

The two exceptions to the overall decrease in the number of cases recorded are the result of the change to a more sensitive standard threshold shift for recording hearing loss, which will increase the number of cases in all industries except construction, and the new requirement to record needlesticks and sharps injuries, which will result in a relatively large increase in the number of cases recorded in SIC 80.

The costs for SIC 80 are analyzed separately. The analysis uses the following classes of industries:

For industries covered by the former regulation and now covered by the new regulation, except for SIC 80, OSHA assumes that the number of needlestick cases recorded will essentially be unchanged by the final regulation.

For industries (except in SIC 80) covered by the former regulation, but exempted under the final regulation, recorded cases will fall to zero, resulting in commensurate savings.

For industries exempted under the former regulation but covered by the final regulation, the impact will be the full cost of recording such cases.

In SIC 80, recorded cases in three-digit industries that are newly exempted (see Table X–3) will fall to zero, resulting in commensurate savings. The industries that will continue to be covered (SIC 805, Nursing and Personal Care Facilities, SIC 806, Hospitals, and SIC 808, Home Health Care Services) will bear the full cost of recording the expected increase in needlesticks and sharps cases. This increase in cases will be analyzed in the same manner as cases in newly covered industries.

(1) Impacts on Costs of the Final Rule's Changes in Scope

The changes in the scope of the final rule's industry coverage will bring commensurate changes in the costs of the regulation. OSHA estimates that, under the former regulation, it required an average of 15 minutes per recorded case to maintain the Log, plus 20 minutes to fill out a 101 form, for those employers who did not use an equivalent form.

The addition of new elements to Form 301, as will be described shortly, raises OSHA's estimate of the total time required to fill out an individual report of injury or illness to 22 minutes. Based on data collected during approximately 400 recordkeeping audit inspections, OSHA assumes that 82 percent of incidents will be recorded on forms other than the new Form 301, such as workers' compensation forms.

The average for the Log takes into account a wide range of cases. For clearly work-related injuries involving an absence of 10 work days and involving no additional restricted time, for example, essentially all of the necessary information can be obtained from workers' compensation-related files. In such a case, entering the data on the Log will simply require pulling the workers' compensation file and entering the key information on the Log—a three minute task. OSHA assumes that the time required to make an entry will increase when either (1) information is not already kept for other purposes, or (2) making the entry requires the recordkeeper to study the regulation. Examples of situations where the necessary information would not already have been recorded elsewhere are cases that are not recorded as workers' compensation cases, or cases involving restricted work days (which are not recorded in workers' compensation data and may not be part of the affected worker's payroll or personnel files). Examples of situations where it would be necessary to study the regulation are those involving questions about the recordability of the incident or its work-relatedness. Changes in scope will have different impacts on the different classes of industries, as follows:

- Continuously Covered Establishments. By definition, establishments in industries formerly covered and still covered by the final regulation will have no changes in costs related to industry scope.
- Newly Exempted Establishments. Establishments that were covered by the former regulation but are exempt from the final regulation will realize for each currently recorded case a cost saving of 15 minutes for the Log entry plus, for 18% of the cases, a saving of 20 minutes for the 301 form. The estimated total annual savings will be $405,499.[21]
- Newly Covered Establishments. Establishments that were exempt under the former regulation but are covered by the final regulation will incur for each currently recorded case costs of 15 minutes for the Log entry plus, for 18% of the cases, 22 minutes for the 301 form. The total annual cost is estimated to be $1,646,000.[22]
- Additional Hearing Loss Cases. Establishments will incur for each additional hearing loss case costs of 15 minutes for the Log entry plus, for 18% of the cases, 22 minutes for the 301 form, or an estimated total annual cost of $2,287,208.[23]
- SIC 80. Establishments in SIC 80 will incur for each additional needlesticks and sharps case costs of 5 minutes for the Log entry[24] plus, for 18% of the cases, 22 minutes for the 301 form, or an estimated total annual cost of $1,971,664.[25]

(The costs of the ''log of percutaneous injuries from contaminated sharps'' specified in the revision of the Bloodborne Pathogens standard in conformance with the requirements of the Needlestick Safety and Prevention Act have been captured in the analysis of that rule. No offset has been taken in the economic analysis of this rule for costs common to these two rules for recording needlestick injuries.)

The estimated total cost impact related to changes in scope of the recordkeeping rule is $5,499,373.

(2) Maintenance of the Log

Form 300 will replace Form 200 as the Log of injuries and illnesses. The revisions to this form represent the greatest source of cost savings to employers required to record work-related injuries and illnesses. The major modifications that result in time and cost savings are simplifications of Form 300 and changes and simplifications in the criteria for recordable cases.

Simplification of the Log. Compared to the form that it will replace, Form 300 has a more logical progression, makes available considerably more space, and eliminates unnecessary columns. OSHA estimates that this will take an average of one minute off the time required to record cases (except for

[21] $405,499 = ((49,698 Cases) × (15 Minutes/Case) + (8,946 Cases) × (20 Minutes/Case)) × ($26.32/Hours).

[22] $1,646,000 = ((197,904 Cases) × (15 Minutes/Case) + ($35.623 Cases) × (22 Minutes/Case)) × ($26.32/Hours).

[23] $2,287,208 = (275,000 Cases) × (15 Minutes/Case) × ($26.32/Hour) + (49,500 Cases) × (22 Minutes/Case)) × ($26.32/Hour).

[24] Under the simplified criteria of the final rule, needlesticks and sharps cases are among the very easiest cases to document and record.

[25] $1,971,664 = ((501,640 Cases) × (5 Minutes/Case) + (90,295 Cases) × (22 Minutes/Case)) × ($26.32/Hour).

those that involve needlesticks or sharps, which will be analyzed separately in this analysis). This simplification of the Log will produce a saving of $2,177,240.[26]

Simplification of Decisionmaking about Recordability. In estimating the savings in time associated with the simplification of recordability decisionmaking, OSHA focused primarily on the simplification of the steps needed to determine whether an injury or illness is serious enough to be recorded. When a work-related injury or illness results in days away from work or restricted workdays, then it is obvious under both the former and final regulations that the injury or illness must be recorded. Under the former regulation, however, the employer was required to consult several paragraphs of the Recordkeeping Guidelines to determine whether an injury that did not result in lost or restricted workdays would need to be counted. The final regulation will allow the employer to settle the issue quickly by looking at the list of first aid treatments in Section 1904.7(b)(4).

Of the cases in the 1998 BLS Survey of Occupational Injury and Illness that did not involve needlesticks or sharps, 52.34 percent did not involve lost or restricted workdays. In addition to the one minute saved for each case because of the forms simplification discussed on the previous page, OSHA estimates that the simplification of recordability decisionmaking under the final rule will save approximately 2 minutes for each such injury or illness case. Applying this unit cost saving to all industries covered by the final rule produces estimated total savings of $2,279,080.[27]

Under the final rule there will no longer be any need to examine in any detail the recordability of any cases involving needlesticks or sharps, since all such cases will have to be recorded. OSHA estimates that the average time required to record such cases will change from 15 minutes under the former rule to 5 minutes under the final rule. This would save covered establishments in SIC 80 an estimated $388,329.[28]

OSHA has also clarified the requirement to record medical removal cases by stating in the regulatory text that any case involving medical removal required by an OSHA health standard must be recorded as a case involving days away from work or restricted work/job transfer (as appropriate). OSHA had interpreted the former rule to have the same effect, but the former regulatory text did not clearly state the requirement. This clarification makes overall compliance with OSHA's rules simpler, because both the recordkeeping rule and the OSHA standards will rely on the same criteria, such as biological monitoring test results, employers' determinations, and physician's opinions, and the recording requirements are clearly stated in the regulatory text.

Under the final rule, days away from work and days of restricted work will be counted by calendar days rather than according to scheduled work days. One commenter (Ex. 57X, pp. 97–101, 117–118) argued that, in the automobile manufacturing industry alone, this could free up $5,000,000 to $6,000,000 worth of human resources per year for more productive uses of time. However, OSHA has not taken cost savings for this change because no data in the record suggest that the projections for this industry will be typical of other industries.

Privacy Concern Cases. The final rule requires maintenance of a separate, confidential list of case numbers and employee names for ''privacy concern cases,'' so that an employee's name does not appear on the Form 300. Privacy concern cases include injury or illness to an intimate body part or the reproductive system; injury or illness resulting from a sexual assault; mental illness; HIV infection, hepatitis, or tuberculosis; needlesticks and sharps injuries; and other illnesses (except MSD illnesses) that the employee requests be treated as a privacy concern case.

In 1997 BLS estimated that there were 621 days away from work cases involving the reproductive tract, 18 rapes, 5,542 mental disorders, and no hepatitis cases. (Data are available at www.bls.gov.) In 1997, OSHA estimated that there were approximately 34,630 occupational TB infections annually. It appears that TB cases have declined somewhat since then, but OSHA uses this number in this analysis as a conservative estimate.

The time to record HIV infection cases is included in the estimate of the time associated with recording 590,165 needlestick and sharps cases, but each of these cases will also require time for making an entry in the confidential list of case numbers and employee names. OSHA also assumes that employees in 10,000 other illness cases will ask that their names not appear on the Form 300.

OSHA estimates that it will take an average of 3 minutes to record each ''privacy concern case'' on the required separate, confidential list of case numbers and employee names. The estimated annual cost of this provision is thus $843,524.[29]

(3) Maintenance of Individual Reports of Injury and Illness

The final regulation substitutes the new Form 301 for the former Form 101 and provides other options.

New Elements on Individual Reports. The new form requires employers to record such additional items as the injured or ill employee's date of hire, emergency room visits, the starting time of the employee's shift, and time of the accident. OSHA estimates that these additional elements will raise time required to fill out an individual report of injury or illness from 20 minutes for the old Form 101 to 22 minutes for the new Form 301. This change will cost employers in industries formerly covered and still covered by the final regulation an estimated $889,169.[30]

Changes that will reduce burden include:

An option to keep Form 301s off-site; and

An option to keep Form 301s on electronic media.

Keeping Form 301s Off-site. Keeping Form 301s off-site will provide the greatest cost savings to small, isolated establishments that are owned by larger firms that already keep personnel data at headquarters or at another site. For such firms, OSHA estimates that the ability to maintain records off-site could save as much as 5 minutes per record. These savings in time and effort would result from reductions in the amount of time necessary to copy the Form 301 at headquarters, send it to the small establishment, receive it there, and file it. There would also be a saving in postage. Under the final rule, such small establishments would have to go through all of these steps only when an inspection occurred. Even if only 2 percent of the estimated recordable cases in establishments that are covered under the final regulation were affected by this provision (which OSHA believes is likely to be an underestimate), the resulting cost savings would be $294,141.[31]

Storing Form 301s on Electronic Media. The final rule permits employers to store Form 301s on electronic media, provided that they are able to produce the records in hard copy within four

[26] $2,177,240 = (4,963,312 Cases) × (1 Minute/Case) × ($26.32/Hour).

[27] $2,279,080 = (2,597,736 Cases) × (2 Minutes/Case) × ($26.32/Hour).

[28] $388,329 = (88,525 Cases) × (10 Minutes/Case) × ($26.32/Hour).

[29] $843,524 = (640,976 Cases) × (3 Minutes/Case) × ($26.32/Hour).

[30] $889,169 = (1,013,503 Cases) × (2 Minutes/Case) × ($26.32/Hour).

[31] $294,141 = (5,630,573 Cases) × (0.02) × [(5 Minutes/Case) × ($26.32/Hour) + ($0.33/Case)].

hours of a request by a government representative permitted access under the regulation. OSHA estimated that electronic storage would be advantageous for establishments that handle more than 100 cases per year. OSHA used as a proxy variable for this number the number of establishments with 1,000 or more employees. In the 1998 BLS survey, establishments in this size category had a total of 899,700 recordable cases. OSHA estimates that for each case the ability to store case information electronically would save 2 minutes of time, plus $.05, for making a paper copy. The estimated cost savings from this change would amount to approximately $825,027 per year.[32] OSHA believes that this may be an underestimate, because having even as few as 30 to 40 cases a year might be enough incentive to prompt a firm to keep its records electronically. To the extent that these much smaller firms turn to electronic storage, the cost savings associated with this provision could be many times greater than the estimate.

(4) Employee and Employee Representative Access

The final regulation requires employers to provide employees and their representatives access to Form 301s and to pay the cost of one copy. (It also requires them to allow access to the Log, but this is not a change from the former rule.) OSHA assumes that employers would require five minutes to pull, copy (at $0.05), and replace the relevant form. OSHA assumes that (a) at one-tenth of covered establishments, one employee would request access to his or her own Form 301, and (b) at one percent of covered establishments, a union representative would request access to all Form 301s at the establishment. OSHA further assumes that there would be an average of ten Form 301s at such establishments.[33] The estimated total cost of this provision is $612,860.[34]

(5) Access to Other Parties

The final regulation requires that if employers voluntarily disclose Forms 300 or 301 to persons other than government representatives, employees, former employees, of authorized representatives, they must remove or hide the employees' names, with certain exceptions. Since employers may accomplish this by simply covering part of the form before they copy it, OSHA considers this requirement to impose no costs.

(6) Total Cost Impact

Table X–7 summarizes the cost impacts of maintaining records attributable to the final regulation. The net impact is an estimated annual cost of $1,881,080.

E. Summary of Costs

Table X–8 summarizes the total annualized cost impacts of the entire final rule. This summary indicates that:

The largest sources of costs are: New certification requirements ($23.8 million), additional data requirements ($12.0 million), expansion in the scope of the rule ($5.5 million), and transitional costs of the new rule ($1.5 million).

The largest sources of savings are: Simplified maintenance of the Log ($4.8 million), less time required to relearn the recordkeeping system ($3.1 million), simplified maintenance of individual reports ($1.1 million).

The net impact of these changes is an estimated annual cost of about $38.6 million.

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[32] $825,027 = (889,700 Cases × [(2 Minutes/Case) × ($26.32/Hour) + ($0.05/Case)].

[33] This is a conservative estimate. The average number of cases per covered establishment was only about 4 in 1998. Further, some employers already provide copies of Form 301s to union representatives. [Transcript, March 29, 1996, p. 14].

[34] $612,860 = (273,197 Forms × [(5 Minutes × ($26.32/Hour) + $.05/Copy)].

TABLE X-7
ANNUAL COSTS OF MAINTAINING RECORDS

Cost Element/ Industry Status Under the Final Rule	Estimated Number of Recorded Cases	Change in Level of Effort (Minutes)	Total Hours	Total Cost
Changes in Scope				
Effects on Number of Log Entries:				
Newly Exempted	49,698	- 15	- 12,425	- $ 327,013[a]
Newly Covered	197,904	15	49,476	$1,302,208[a]
Additional Hearing Cases	275,000	15	68,750	$1,809,500[a]
Additional Needlestick Cases	501,640	5	41,803	$1,100,255[a]
Effects on Number of 301 Forms:				
Newly Exempted	8,946	- 20	- 2,982	- $ 78,486[a]
Newly Covered	35,623	22	13,062	$ 343,792[a]
Additional Hearing Cases	49,500	22	18,150	$ 477,708[a]
Additional Needlestick Cases	90,295	22	33,108	$ 871,409[a]
Maintenance of the Log				
Covered under Final Rule[b]	4,963,312	- 1	- 82,722	- $2,177,240[a]
Non- Lost Work Day Cases				
Covered under Final Rule[b]	2,597,736	- 2	- 86,591	- $2,279,080[a]
Previous Needlestick Cases	88,525	- 10	- 14,754	- $ 388,329[a]
Privacy Concern Cases				
Covered under Final Rule	640,976	3	32,049	$ 843,524[a]
Maintenance of Individual Reports:				
New Elements on Form 301				
Formerly & Still Covered	1,013,503	2	33,783	$ 889,169[a]
Form 301 Off-Site				
Covered under New Rule	116,569	- 5	- 9,714	- $ 294,141[a]
Electronic Media				
Covered under New Rule	889,700	- 2	- 29,657	- $ 825,057[a]
Employee Access				
Covered under New Rule	273,197	5	22,766	$ 612,860[a]
TOTAL ANNUAL COST			109,138	$1,881,080

[a] Based on an hourly cost of $26.32

[b] Except needlesticks and additional hearing loss cases

TABLE X-8
NET ANNUAL COSTS ASSOCIATED WITH THE FINAL RULE, BY PROVISION

Cost Element	Total Net Hours	Total Net Cost
Initial Familiarization Costs		
Shift to the New Recordkeeping System	395,566[a]	$ 1,482,384
Initially Learn the Recordkeeping System	179,287[a]	$ 671,856
Relearn the Recordkeeping System	- 118,729	- $ 3,124,947
Fixed Recordkeeping Costs		
Set Up Log and Post Summary	7,942	$ 209,034
Additional Data Requirements	455,328	$11,984,233
Certification	639,445	$23,769,402
Way to Inform Employees	455,328	$ 1,706,285
Costs of Maintaining Records		
Changes in Scope	208,943	$ 5,499,373
Maintenance of the Log	- 184,067	- $ 4,844,648
Privacy Concern Cases	32,049	$ 843,524
New Elements on Individual Reports	33,783	$ 889,169
Maintenance of Individual Reports	- 39,371	- $ 1,119,198
Employee Access	22,766	$ 612,860
TOTAL ANNUAL COST	2,088,269[b]	$38,246,377

[a] One-time costs only.

[b] Includes 1,030,181 hours that will be required in the first year only.

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4. Benefits

OSHA's final Recording and Reporting Occupational Injuries and Illnesses rule is designed to provide an information base to assist employers and employees to maintain safe and healthy working conditions that protect workers. The importance of the contribution of accurate recordkeeping to lower injury and illness rates is indicated by experience with OSHA's Voluntary Protection Program (VPP), a program that recognizes employers with exemplary safety and health programs. VPP worksites, which have comprehensive safety and health management programs that include effective injury, illness, and accident recordkeeping, generally have lost-workday case rates ranging from one-fifth to one-third the rates experienced by most worksites in the same industry.[35] These sites also routinely rely on the Logs and other worksite data sources to evaluate their programs and correct deficiencies. This chapter describes the potential benefits associated with the changes OSHA is making to the recordkeeping requirements in 29 CFR 1904.

A. Overview of Benefits

The benefits of improved recordkeeping fall into two groups. Improved recordkeeping enhances the ability of employers and employees to prevent occupational injuries and illnesses. Improved recordkeeping and reporting also increases the utility of injury and illness records for OSHA's purposes.

(1) Enhanced Ability of Employers and Employees to Prevent Injuries and Illnesses

The additional or improved information about events and exposures to be collected on Form 301, including information on the location, the equipment, materials or chemicals being used, and the specific activity being performed, will increase the ability of employers and employees to identify hazardous conditions and to take remedial action to prevent future injuries and illnesses. Identifying the irritating substance that has caused an employee to experience a recordable case of occupational dermatitis, for example, could prompt an employer to re-examine available Material Safety Data Sheets to identify a non-irritating substitute material. On Form 301, details will be recorded in a logical sequence that will help structure the information and focus attention on problem processes and activities. Thus the establishment's records of injuries and illnesses will provide management with an analytical tool that can be used to control or eliminate hazards.

The process of using recorded information to control or eliminate hazards was well illustrated in a comment on the proposed rule.[36] This testimony described a training exercise where trainees used Log data to plot MSD injuries on a floor plan; went into the plant to look for risk factors and interview workers; formulated specific workplace design and work organization changes to eliminate or reduce risk factors; and refined their findings into an action plan.

If this enhanced ability to identify (and thus address) hazards translates into a reduction even as small as 0.5 to 1 percent of the estimated number of recordable cases, it would mean the prevention of 29,147 to 58,285 injuries and illnesses per year.[37]

(2) Increased Utility of Data to OSHA

The final rule's changes will also make injury records more useful to OSHA, as well as to employers and employees. Improvements in the quality and usefulness of the records being kept by employers would enhance OSHA's capacity to:

Focus compliance outreach efforts on the most significant hazards;

Identify types or patterns of injuries and illnesses whose investigation might lead to regulatory changes or other types of prevention efforts, such as enforcement strategies, information and training, or technology development; and

Set priorities among establishments for inspection purposes.

Employers and employees both stand to benefit from the more effective use of OSHA's resources. The enhanced ability of compliance officers to identify patterns of injuries will enable OSHA to focus on more serious problems. Identification of such patterns will also increase the ability of employers to control these hazards and prevent other similar injuries. To the extent that employers take advantage of this information, the burden of OSHA inspections should be reduced in the long run. Employees clearly will also benefit from these reductions in injuries.

B. Specific Benefits of the Final Regulation

(1) Changes in Scope of the Regulation

The changes in the scope of the final regulation in the retail and service sectors represent a refinement in coverage. The scope of the former rule is defined at the two-digit SIC level; the scope of the final rule is defined at the three-digit SIC level. OSHA is expanding the scope to include high-risk three-digit industries that were previously exempt and to reduce the scope to exempt low-risk three-digit industries that were previously covered.

The effect of this change is to make the regulation more cost-effective. This retargeting shifts the burden from industries with relatively few injuries and illnesses per establishment to industries with substantially larger numbers of injuries and illnesses per establishment. Thus the final rule will result in higher hazard identification benefits per dollar of regulatory burden. It is also likely to lead to a small reduction in injuries and illnesses at newly covered establishments that had not been keeping records at all.

The final rule's changes in scope will similarly increase the cost-effectiveness of OSHA's compliance activities. With the same expenditure of resources, OSHA will be better able to detect injury and illness trends and to assist employers to address the causes of these trends. OSHA expects this more efficient use of Agency resources to translate directly into reduced worker injuries and illnesses, reductions in costs to employers, and increased productivity.

(2) Forms Simplification and Definitions

The general reduction in burden associated with changes in the forms and in the data reported was discussed in the previous chapter under cost savings. The simplification of the forms also will have benefits in the form of improved information. The same is true of definitional changes, such as counting lost workdays or restricted work days as calendar days and capping the count at 180 days. Easier recording of data will make records of individual cases more complete and consistent. It is also possible that simplified recording will encourage more complete recording of job-related injuries and illnesses.

This process is illustrated by the change from days away from work to calendar days. This change represents an explicit decision to shift the emphasis from lost productivity to the seriousness of the injury or illness. Calendar days are a more accurate and consistent reflection of seriousness than

[35] **Federal Register,** January 26, 1989, p. 3904.

[36] Nancy Lessin, Testimony on behalf of Massachusetts Coalition for Occupational Safety and Health, May 3, 1996, Transcript, p. 48.

[37] (0.005 to .01) × 5,828,477.

are lost scheduled workdays. They are also directly comparable across establishments and industries, while days away from work are not. Thus, calendar days produce more useful information for the purpose of assessing patterns of injuries and illnesses. This variable is also generally much simpler to determine and record, so that the information is more likely to be complete and accurate. This combination of attributes, OSHA believes, will substantially improve the quality of the information available for analysis and enhance the resulting actions taken to reduce job-related injuries and illness.

(3) Recordable Injuries/Illnesses

The changes in the definition of the injuries and illnesses that are recordable have several different types of benefits. In general, they follow a pattern of simplification and/or more cost-effective targeting of recording requirements, which should produce the types of benefits discussed above. Changes that add to the information recorded have other benefits as well.

Specified Recording Thresholds. One change involves identifying the threshold at which a medical removal condition or restriction is to be recorded, and tying this to the level in a specific OSHA standard (lead, cadmium, ergonomics, etc.). This requirement involves no increase in cost, since the pre-removal or restriction conditions are already required under the specific OSHA standard.

Needlesticks and Sharps Injuries and Hearing Loss Cases. By far the most extensive change in recording is the requirement to report *all* needlesticks and sharps injuries involving exposure to blood or other potentially infectious materials in the covered industries. The benefits of this change are also quite extensive, however, and the costs are less than they might at first seem. In effect, OSHA is changing the emphasis on these injuries from the effects (the injury's medical treatment) to the actual injury caused by the incident (i.e., the needlestick or sharps injury).

Recording all needlesticks and sharps injuries will provide far more useful information for illness prevention purposes. Unlike many other conditions (*e.g.*, blood poisoning and hearing loss) that are progressive, AIDS and hepatitis are either present or they are not. In any given work setting, the risk is probabilistic and bimodally distributed; either one is infected by an injury or one is not. Under these circumstances, it is important to prevent all injuries that might lead to illness. For that prevention strategy to be successful, however, it is necessary to get a complete picture of the overall pattern of all needlesticks and sharps injuries. This requires recording all such injuries, whether or not they result in AIDS, hepatitis, or other bloodborne illness. The final regulation accomplishes this.

Because of their high mortality and disability potentials, AIDS and hepatitis are particularly frightening illnesses. One implication of this fact, however, is that the benefits per case of prevention are large. Another implication is that there are substantial employee morale benefits to a prevention program that is comprehensive and well informed. Recording all risky wounds and then using the data for prevention are actions that are reasonable. These provisions of the final rule are likely also to result in indirect benefits in the form of improved patient care.

Hearing loss cases also result in substantial disability and lead to safety accidents as well. OSHA believes that aligning the recording threshold for such cases with the Standard Threshold Shift criterion in the Agency's occupational Noise Standard will simplify recording for many employers who are already familiar with this criterion. The shift in this recording criterion will also increase the number of hearing loss cases captured by the recordkeeping system and provide more opportunities for employers to intervene to prevent other hearing loss cases.

(4) Procedural Changes and Informational Requirements

The relationship between costs and benefits varies for the final rule's procedural changes and for its requirements for additional information. Some provisions have positive but trivial costs. Others have more significant costs but substantial benefits.

De Minimis Costs. A number of changes have costs that are so low that the benefits of the change are clearly greater. Examples include the provisions discussed below.

Recording incidents within seven calendar days, rather than six working days, will impose costs for more rapid recording on establishments that work only five days a week. The reduced burden resulting from a simpler deadline—one week later—almost certainly outweighs this minuscule cost, however. Moreover, for establishments that operate six or seven days a week, this change does not impose any costs at all.

The requirement, upon change of ownership, for the seller to hand over records to the buyer of the business has extremely small costs. The seller, after all, is already required to maintain those records, and the buyer is required to take them over. The benefits of continuity of information are clearly much greater than this trivial cost.

The cost, if any, for posting (but not revising) the Annual Summary for three months, rather than one month, is extremely small—particularly considering that quite a number of other certificates and information (*e.g.*, elevator certificates, minimum wage information, etc.) must be posted at all times. The ability of employees to refer back to the Annual Summary information, as well as the availability of the information to new employees when they are hired, clearly produces benefits that exceed the costs.

Certification by a Company Executive. The requirement that a company executive certify the Summary will have the effect of increasing the oversight and accountability of higher management in health and safety activities. The certifying official will be responsible for ensuring that systems and processes are in place and for holding the recordkeeper accountable. OSHA believes that this increased awareness of job-related injuries and illnesses, and of their prevention, will translate into fewer accidents and injuries because the certifying executive will have a heightened sense of responsibility for safety and health, although quantifying this benefit is not possible at this time.

Additional Data Requirements for Form 301 and Form 300–A. The final rule will require employers to provide several additional pieces of information, at an estimated cost of two minutes per Form 301 and twenty minutes per Form 300–A.

Additional information related to incidents (on Form 301) includes: Employee's date of hire, emergency room visits, time the employee began work (starting time of the shift), and time of the accident.

Additional establishment information (on the Form 300–A Summary) includes:

Annual average number of employees employed in that year, and Total hours worked by all employees during the year.

Information on the injured employee's date of hire can provide insight into a number of factors that have been shown to relate to injury rates. Such factors may include inadequate training, inexperience on the job, etc. If OSHA were to link its injury data with information on the distribution of job tenure, for example, it could then calculate injury rates by job tenure category for different jobs. That information would help to identify areas

where better training would have the greatest potential to reduce injuries.

Data on starting times of shifts and the time of occurrence of the accident will facilitate research on whether accident rates vary by shift, and whether certain portions of a shift are particularly dangerous. This information will be helpful to OSHA as well as to the employer's own assessment of workplace safety and health. Most importantly, employees will receive the information they need to understand both the absolute and relative incidence of injuries and illnesses in their establishment. Such information is essential both for market-based mechanisms to influence safety and health and for meaningful employee participation in safety and health.

The inclusion of information concerning the average number of employees and total hours worked by all employees during the year will enable OSHA inspectors to calculate incidence rates directly from the posted summary. Employers will also benefit from their ability to obtain incidence information quickly and easily.

At the establishment level, occupational injury and illness records are examined at the beginning of an OSHA inspection and are used by compliance officers to identify safety and health problems that deserve to be focused on. The data on Form 300 and Form 301 will also be used to determine what areas of the site, if any, warrant particular attention during the inspection. Again, access to this improved information will be of direct benefit to employers and employees, who will be able to act on it to control hazards.

Employee Access to Form 301. Providing employees with access to the Form 301, as well as the Form 300, will allow them to monitor the accuracy of the data and to identify possible patterns of injuries and illnesses. Access to Form 301 is important because this form contains enough detailed information about the events surrounding the occurrence to enable workers analyzing it to identify the appropriate protective measures to prevent future accidents.

(5) Summary

Taken together, the changes that OSHA is making to its recording and reporting requirements are designed to achieve the Agency's primary goal of reducing job-related injuries, illnesses, and fatalities. The link between more accurate and better-targeted injury and illness recordkeeping and accident prevention has repeatedly been established and emphasized by the National Academy of Sciences, the Keystone Report, the testimony of safety and health professionals, and the Agency's own experience. The final rule's changes will thus benefit workers, their employers, and the Agency's accident prevention efforts.

5. Economic Feasibility and Small Business Impacts

Introduction

This section assesses the impact on affected firms of the costs of implementing the final recordkeeping rule. It is divided into four parts. The first part analyzes the economic feasibility of the rule for firms in all affected industries. The second part analyzes the economic impacts of the rule on small entities in the affected industries. The third part presents an Unfunded Mandates Analysis, which OSHA has conducted in accordance with the Unfunded Mandates Reform Act. The fourth part examines the potential environmental impacts of the regulation.

Analysis of Economic Feasibility

The final 1904 rule is a regulation promulgated under sections 8 and 24 of the OSH Act, and is not a standard, which would be promulgated under Section 6 of the Act. Nevertheless, OSHA has performed an analysis of the economic feasibility of the rule.

The courts have held that, to demonstrate that a standard is economically feasible, OSHA ''must construct a reasonable estimate of compliance costs and demonstrate a reasonable likelihood that these costs will not threaten the existence or competitive structure of an industry, even if it does portend disaster for some marginal firms'' [*United Steelworkers of America* v. *Marshall,* 647 F.2d 1189, 1272 (D.C. Cir. 1980) (the ''Lead decision'')]. In assessing the economic feasibility of the final recordkeeping rule, OSHA has followed the decisions of the courts in the Lead case and other OSHA cases, and has relied on information and data in the record to determine that the final standard is economically feasible for firms in all affected industries.

OSHA's estimates of the number of covered establishments in each affected industry are presented in Section 2 of this economic analysis, and the results of the Agency's analysis of annualized compliance costs are presented in Section 3. The Agency's analysis is based on comments to the record, supplemented, where needed, by public information sources such as the Census Bureau's *County Business Patterns.*

In this section, for each affected industry, estimates of per-firm annualized compliance costs are compared with (a) per-firm estimates of sales from a compilation of 1996 data performed by the U.S. Census Bureau for the Small Business Administration to reflect parent company control of establishments, and (b) per-firm estimates of profits derived from information in Dun & Bradstreet's ''Industry Norms and Key Business Ratios'' database for 1996 or by applying 1996 profit percentages from Robert Morris Associates to the Agency's per-firm estimates of sales. Based on the results of these comparisons, which identify the magnitude of the potential impacts of the final rule, OSHA then assesses the rule's economic feasibility for establishments in all affected industries.

To estimate the sales and profits of covered firms, OSHA identified the Standard Industrial Classifications (SICs) of every industry under the scope of the rulemaking. For each industry, OSHA then calculated the average sales per firm in the relevant SIC(s). The average rate of return on sales (from Dun and Bradstreet or, if necessary, from Robert Morris Associates) was used to estimate average profit per firm. (Throughout this section, the term ''average'' is used to mean the arithmetic mean.)

The cost estimates compared with estimated sales and profit data for firms in each affected industry ''screen'' for potential impacts. If sizeable impacts were identified by this screening analysis, additional analysis would be necessary.

Table X–9 shows compliance costs as a percentage of before-tax profits and of sales. This table presents the results of the screening analysis, which simply measures costs as a percentage of before-tax profits and sales; the screening analysis is used to determine whether the compliance costs potentially associated with the rule could lead to significant impacts on the affected firms under worst-case scenarios. Whether or not the costs of compliance actually lead to a significant impact on the profit and/or sales of firms in a given industry will depend on the price elasticity of demand for the products or services of firms in that industry.

Price elasticity refers to the relationship between the price charged for a product and the demand for that product: the more elastic the relationship, the less able firms are to pass the costs of compliance through to their customers in the form of a price increase and the more they must absorb the costs of compliance from their

profits. When demand is inelastic, firms can absorb all the costs of compliance simply by raising the prices they charge for that product; under this scenario, profits are untouched. On the other hand, when demand is elastic, firms cannot cover the costs simply by passing the cost increase through in the form of a price increase; instead, they must absorb some of the increase from their profits. In general, ''when an industry is subjected to a higher cost, it does not simply swallow it; it raises its price and reduces its output, and in this way shifts a part of the cost to its consumers and a part to its suppliers,'' in the words of the court in *American Dental Association* v. *Secretary of Labor,* [984 F.2d 823, 829 (Seventh Cir. 1993)] (the ''ADA decision'').

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TABLE X-9

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR ALL COVERED FIRMS, UNDER TWO WORST-CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
07	Agricultural Services	$ 26.27	$1,643,011	0.0016%	$98,581	0.027%
08	Forestry	$ 34.18	$4,517,500	0.0008%	$140,043	0.024%
09	Fishing, Hunting, & Trapping	$ 28.24	$6,318,183	0.0004%	$315,909	0.009%
13	Oil and Gas Extraction	$ 45.83	$34,757,006	0.0001%	$1,772,607	0.003%
15	Gen. Contractors & Op. Builders	$ 25.16	$8,733,493	0.0003%	$227,071	0.011%
16	Heavy Constr., except Building	$ 24.61	$8,891,657	0.0003%	$337,883	0.007%
17	Special Trade Contractors	$ 24.83	$3,021,903	0.0008%	$114,832	0.022%
20	Food and Kindred Products	$ 39.45	$55,449,039	0.0001%	$1,108,981	0.004%
21	Tobacco Products	$109.19	$611,873,720	*	$23,863,075	**
22	Textile Mill Products	$ 53.53	$27,804,977	0.0002%	$722,929	0.007%
23	Apparel & Other textile Products	$ 37.80	$6,533,106	0.0006%	$163,328	0.023%
24	Lumber and Wood Products	$ 31.92	$8,476,937	0.0004%	$305,170	0.010%
25	Furniture and Fixtures	$ 32.73	$10,819,231	0.0003%	$335,396	0.010%
26	Paper and Allied Products	$ 60.90	$50,060,367	0.0001%	$1,902,294	0.003%
27	Printing and Publishing	$ 41.86	$10,140,518	0.0004%	$415,761	0.010%
28	Chemicals & Allied Products	$ 78.02	$88,199,672	0.0001%	$3,704,386	0.003%
29	Petroleum & Coal Products	$ 96.77	$240,889,238	*	$7,467,566	0.001%
30	Rubber & Misc. Plastics Pdts	$ 40.67	$17,053,410	0.0002%	$613,923	0.007%
31	Leather and Leather Products	$ 38.35	$11,516,441	0.0003%	$207,296	0.018%
32	Stone, Clay, & Glass Products	$ 49.98	$12,963,602	0.0004%	$635,216	0.008%
33	Primary Metal. Industries	$ 33.15	$48,966,680	0.0001%	$2,301,434	0.001%
34	Fabricated Metal Products	$ 32.19	$11,131,190	0.0003%	$478,641	0.007%
35	Industrial Machinery & Equipment	$ 32.47	$13,603,234	0.0002%	$557,733	0.006%

TABLE X-9

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR ALL COVERED FIRMS, UNDER TWO WORST-CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
36	Electronic & Other Electrical Equip.	$ 49.71	$34,672,510	0.0001%	$1,733,626	0.003%
37	Transportation Equipment	$ (6.32)	$107,210,814	- *	$4,288,433	- **
38	Instruments & Related Products	$ 50.12	$29,545,846	0.0002%	$1,625,022	0.003%
39	Misc. Manufacturing Industries	$ 32.37	$7,712,561	0.0004%	$254,515	0.013%
41	Local & Interurban Pass. Transit	$ 34.78	$2,782,251	0.0012%	$164,153	0.021%
42	Trucking and Warehousing	$ 40.54	$6,828,568	0.0006%	$245,828	0.016%
43	United States Postal Service	$776,159	$60,005,000,00	0.0013%	N/A	N/A
44	Water Transportation	$ 38.83	$16,550,772	0.0002%	$827,539	0.005%
45	Transportation by Air	$ 20.57	$77,701,749	*	$3,185,772	0.001%
46	Pipelines, except Natural Gas	$350.74	$123,685,486	0.0003%	$6,060,589	0.006%
47	Transportation Services	$ 68.59	$4,212,194	0.0016%	$134,790	0.051%
48	Communication	$133.35	$45,842,134	0.0003%	$3,071,423	0.004%
49	Electric, Gas, & Sanitary Svs	$111.93	$112,358,783	0.0001%	$10,112,290	0.001%
50	Wholesale Trade - Durables	$ 51.39	$25,279,114	0.0002%	$606,699	0.008%
51	Wholesale Trade - Nondurables	$ 49.58	$42,689,772	0.0001%	$768,416	0.006%
521	Lumber & Other Bldg Materials	$ 52.26	$15,180,822	0.0003%	$288,436	0.018%
523	Paint, Glass & Wallpaper Stores	$142.20	$5,388,504	0.0026%	$48,497	0.293%
526	Retail Nurseries & Garden Stores	$ 38.87	$2,528,349	0.0015%	$55,624	0.070%
527	Mobile Home Dealers	$ 52.29	$8,631,626	0.0006%	$250,317	0.021%
53	General Merchandise Stores	$301.14	$141,333,177	0.0002%	$3,391,996	0.009%
541	Grocery Stores	$ 76.04	$18,148,027	0.0004%	$217,776	0.035%
543	Fruit & Vegetable Markets	$ 32.32	$3,033,727	0.0011%	$39,438	0.082%

TABLE X-9

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR ALL COVERED FIRMS, UNDER TWO WORST-CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
553	Auto & Home Supply Stores	$207.49	$6,295,269	0.0033%	$119,610	0.173%
555	Boat Dealers	$ 65.37	$5,020,251	0.0013%	$110,446	0.059%
556	Recreational Vehicle Dealers	$ 72.19	$9,137,789	0.0008%	$155,342	0.046%
571	Furniture & Furnishings Stores	$131.57	$5,126,403	0.0026%	$117,907	0.112%
572	Household Appliance Stores	$ 89.23	$5,087,527	0.0018%	$117,013	0.076%
593	Used Merchandise Stores	$143.80	$2,423,691	0.0059%	$111,490	0.129%
596	Nonstore Retailers	$103.25	$13,330,037	0.0008%	$266,601	0.039%
598	Fuel Dealers	$128.25	$6,046,113	0.0021%	$48,369	0.265%
651	Real Estate Oprs &Lessors	$ 81.54	$5,093,830	0.0016%	$784,450	0.010%
655	Subdividers & Developers	$ 84.66	$5,577,710	0.0015%	$507,572	0.017%
70	Hotels & Other Lodging Places	$ 34.95	$5,334,743	0.0007%	$373,432	0.009%
721	Laundry, Cleaning & Garment Svcs	$ 88.69	$1,661,452	0.0053%	$63,135	0.140%
734	Services to Buildings	$ 58.48	$1,486,505	0.0039%	$55,001	0.106%
735	Misc. Equip. Rental & Leasing	$140.26	$5,665,544	0.0025%	$521,230	0.027%
736	Personal Supply Services	$122.03	$6,371,536	0.0019%	$191,146	0.064%
751	Automotive Rental & Leasing	$122.70	$20,477,609	0.0006%	$1,167,224	0.011%
752	Automobile Parking	$346.96	$7,956,476	0.0044%	$381,911	0.091%
753	Automotive Repair Shops	$ 39.47	$1,712,369	0.0023%	$66,782	0.059%
754	Automotive Svs, except Repair	$ 45.15	$1,218,918	0.0037%	$79,230	0.057%
762	Electrical Repair Shops	$ 52.11	$4,100,382	0.0013%	$106,610	0.049%

TABLE X-9

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR ALL COVERED FIRMS, UNDER TWO WORST-CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
763	Watch, Clock & Jewelry Repair	$ 83.20	$1,714,533	0.0049%	$58,294	0.143%
769	Miscellaneous Repair Shops	$ 32.68	$2,867,239	0.0011%	$169,167	0.019%
794	Commercial Sports	$ 19.62	$10,882,419	0.0002%	$391,767	0.005%
799	Misc. Amusement & Rec. Svcs	$ 29.18	$3,061,718	0.0010%	$128,592	0.023%
805	Nursing & Personal Care Facilities	$ 86.55	$6,269,041	0.0014%	$269,569	0.032%
806	Hospitals	$256.90	$75,848,928	0.0003%	$3,868,295	0.007%
808	Home Health Care Services	$ 90.38	$4,861,272	0.0019%	$170,145	0.053%
833	Job Training & Related Svcs	$108.09	$2,420,399	0.0045%	$60,510	0.179%
836	Residential Care	$107.87	$2,223,194	0.0049%	$57,803	0.187%
842	Botanical & Zoological Gardens	$166.25	$4,411,468	0.0038%	$269,100	0.062%
All Covered Firms		$ 57.82				

* indicates absolute value is less than .00005%
** indicates absolute value is less than .0005%

Source: Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis

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Specifically, if demand is completely inelastic (i.e., the price elasticity is 0), then the impact of compliance costs that amount to 1 percent of revenues would be a 1 percent increase in the price of the product, with no decline in demand or in profits. Such a situation would be most likely when there are few, if any, substitutes for the product or services offered by the affected firms and the products or services of the affected firms account only for a small portion of the income of their consumers. If demand is perfectly elastic (i.e., the price elasticity is infinitely large), then no increase in price is possible, and before-tax profits would be reduced by an amount equal to the costs of compliance (minus any savings resulting from improved worker health and reduced insurance costs). Under this scenario, if the costs of compliance represent a large percentage of the firm's profits, some firms might be forced to close. This scenario is highly unlikely to occur, however, because it can only arise when there are other goods or services that are, in the eyes of consumers, perfect substitutes for the goods produced by the affected firms.

A common intermediate case would be a price elasticity of one. In this situation, if the costs of compliance amount to 1 percent of revenues, and prices are raised by 1 percent, then production would decline by 1 percent. In this situation, firms would remain in business and maintain the same profit as before, but would produce 1 percent less product. Consumers would effectively absorb the costs through a combination of increased prices and reduced consumption; this, as the court described in the ADA decision, is the more typical case.

As Table X–9 shows, the impacts potentially imposed by the final rule are not sizeable. On average, annual costs per firm are less than $58. (In one industry, Transportation Equipment, characterized by large workplaces, the potential reduction in costs that vary with the number of cases actually outweighs the potential increase in essentially fixed costs associated with the number of establishments, producing an average reduction in costs per firm.) In no industry do average compliance costs per firm amount to more than .006 percent of sales or 0.3 percent of profits. Even if no price increase were possible, a 0.3 percent decline in profits would not threaten the viability of any firm. For example, a firm with before-tax profits of 10 percent of sales would still have profits of 9.97 percent of sales, even under this extreme scenario. Thus, the final rule is clearly economically feasible in all industry groups.

Among the covered SICs, average compliance costs as a percent of sales range from less than .00005% in several industries, such as SIC 29, Petroleum and Coal Products, to .0059% in SIC 593, Used Merchandise Stores. Average compliance costs as a percent of profits ranges from less than .0005% in several industries, such as SIC 37, Transportation Equipment manufacturing, to .293% in SIC 523, Paint, Glass, and Wallpaper Stores.

Potential Economic Impacts of the Rule on Small Firms

As required by the Regulatory Flexibility Act (as amended in 1996), this section measures the potential economic impacts of the final rule on small businesses in the regulated community to determine whether the rule has a significant impact on a substantial number of small firms. It builds on the analysis of economic impacts developed in the Economic Feasibility part of this section. The Agency has analyzed the impact of the final recordkeeping rule on small entities, as defined by the Small Business Administration and in accordance with the Regulatory Flexibility Act.

Data on receipts were provided by the Commerce Department, in a data table specially commissioned by the Small Business Administration. Since the size definitions SBA has established do not precisely match the categories provided in these data, the Agency approximated the nearest data grouping, where necessary. The SBA-commissioned data were broken into size categories of firms defined by numbers of employees (1–4, 5–9, 10–19, 20–99, 100–499, >500). Where these size categories did not match SBA's assigned ''small'' firm definitions, the Agency approximated them to the closest category. For those industries where an ''annual receipts'' SBA definition was used, the Agency projected the analogous employment break by examining the ratio of employment to receipts per firm. For example, in Heavy Construction, SIC 16, the ratio of employment to receipts suggested that a $17 million firm would have approximately 104 employees. The Agency therefore examined firms with fewer than 100 employees. This process is shown in Table X–10.

The results of this analysis are shown in Table X–11. Over the entire range of SICs affected by the final rule, estimated cost per small firm averages only $31.63.

In order to ensure that even the smallest entities would not be significantly impacted, the Agency performed an analysis of impacts on very small firms, i.e., those with fewer than 20 employees. This analysis used the same sources for sales and profit data as Table X–11. The results of this analysis are shown in Table X–12.

Regardless of whether the SBA definitions or the fewer-than-20-employee definition was used, the results were the same—no significant impact. For the purposes of small-business impact assessment, OSHA defines as potentially significant annualized costs of compliance that amount to 1 percent of sales or 5 percent of profits. The impacts of the rule on sales and profits did not exceed 1 percent for firms in any covered industry, whether the analysis used the SBA's definitions or the fewer-than-20-employee size class definition. No small firm in any industry would need to increase its prices by more than 0.0105 percent, even under a full cost pass-through scenario. Alternatively, if a small firm had to pay for the costs of compliance entirely from profits, costs would account for no more than 0.406 percent of profits [38] in any industry. Impacts of this magnitude would not affect the viability of even the smallest firm.

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[38] It should be emphasized that a one percent decrease in profits represents a one percent decrease in profits, not in profit rate.

TABLE X-10

CONVERSION OF SBA SIZE DEFINITIONS TO CONFORM TO AVAILABLE DATA

SIC	Industry	Affected Firm Size Class *	Sales per Employee in 20-99 Employee Group	Estimated Number of Employees at Class Limit	Approximated Class Size Limit
07	Agricultural Services	$5 million	$ 51,635	97	99
08	Forestry	$5 million	$ 79,190	63	99
09	Fishing, Hunting, and Trapping	$3 million	$128,436	23	19
13	Oil and Gas Extraction	500 employees	NA	500	499
15	General Contractors & Operative Builders	$17 million	$246,233	69	99
16	Heavy Construction, except Building	$17 million	$163,694	104	99
17	Special trade Contractors	$ 7 million	$ 95,231	74	99
20	Food and Kindred Products	500 employees	NA	500	499
21	Tobacco Products	500 employees	NA	500	499
22	Textile Mill Products	500 employees	NA	500	499
23	Apparel and Other textile Products	500 employees	NA	500	499
24	Lumber and Wood Products	500 employees	NA	500	499
25	Furniture and Fixtures	500 employees	NA	500	499
26	Paper and Allied Products	500 employees	NA	500	499
27	Printing and Publishing	500 employees	NA	500	499
28	Chemicals and Allied Products	500 employees	NA	500	499
29	Petroleum and Coal Products	500 employees	NA	500	499
30	Rubber and Miscellaneous Plastics Pdts	500 employees	NA	500	499
31	Leather and Leather Products	500 employees	NA	500	499

TABLE X-10

CONVERSION OF SBA SIZE DEFINITIONS TO CONFORM TO AVAILABLE DATA

SIC	Industry	Affected Firm Size Class *	Sales per Employee in 20-99 Employee Group	Estimated Number of Employees at Class Limit	Approxi-mated Class Size Limit
32	Stone, Clay, and Glass products	500 employees	NA	500	499
33	Primary Metal. Industries	500 employees	NA	500	499
34	Fabricated Metal Products	500 employees	NA	500	499
35	Industrial Machinery and Equipment	500 employees	NA	500	499
36	Electronic & Other Electrical Equipment	500 employees	NA	500	499
37	Transportation Equipment	500 employees	NA	500	499
38	Instruments and Related Products	500 employees	NA	500	499
39	Miscellaneous Manufacturing Industries	500 employees	NA	500	499
41	Local and Interurban Passenger Transit	$ 5 million	$ 38,970	128	99
42	Trucking and Warehousing	$18.5 million	$ 93,596	198	99
44	Water Transportation	500 employees	NA	500	499
45	Transportation by Air	1500 employees	NA	1500	499
46	Pipelines, except Natural Gas	1500 employees	NA	1500	499
47	Transportation Services	$ 5 million	$ 73,838	68	99
48	Communication	1500 employees	NA	1500	499
49	Electric, Gas, and Sanitary Services	$ 5 million	$301,546	17	19
50	Wholesale Trade - Durable Goods	100 employees	NA	100	99
51	Wholesale trade - Nondurable Goods	100 employees	NA	100	99
521	Lumber and Other Building Materials	$ 5 million	$225,654	22	19
523	Paint,, Glass, and Wallpaper Stores	$ 5 million	$136,892	37	19
526	Retail Nurseries and Garden Stores	$ 5 million	$ 92,622	54	19

TABLE X-10

CONVERSION OF SBA SIZE DEFINITIONS TO CONFORM TO AVAILABLE DATA

SIC	Industry	Affected Firm Size Class *	Sales per Employee in 20-99 Employee Group	Estimated Number of Employees at Class Limit	Approximated Class Size Limit
527	Mobile Home Dealers	$ 9.5 million	$286,529	33	19
53	General Merchandise Stores	$ 5 million	$138,035	36	19
541	Grocery Stores	$20 million	$118,116	169	99
543	Fruit and Vegetable Markets	$ 5 million	$103,003	49	19
553	Auto and Home Supply Stores	$ 5 million	$137,449	36	19
555	Boat Dealers	$ 5 million	$228,912	22	19
556	Recreational Vehicle Dealers	$ 5 million	$367,035	14	19
571	Furniture and Homefurnishings Stores	$ 5 million	$143,728	35	19
572	Household Appliance Stores	$ 5 million	$188,677	34	19
593	Used Merchandise Stores	$ 5 million	$ 52,924	94	99
596	Nonstore Retailers	$ 5 million	$144,160	35	19
598	Fuel Dealers	$ 5 million	$185,718	27	19
651	Real Estate Operators and Lessors	$ 5 million	$155,042	32	19
655	Subdividers and Developers	$ 5 million	$155,425	32	19
70	Hotels and Other Lodging Places	$ 5 million	$ 44,641	112	99
721	Laundry, Cleaning, and Garment Svcs	$ 5 million	$ 38,848	129	99
734	Services to Buildings	$12 million	$ 23,274	537	499
735	Misc. Equipment Rental & Leasing	$ 5 million	$ 38,848	129	99
736	Personal Supply Services	$ 5 million	$ 32,785	153	99
751	Automotive Rental & Leasing, w/o Drivers	$18.5 million	$172,688	107	99
752	Automobile Parking	$ 5 million	$ 75,807	66	99

TABLE X-10

CONVERSION OF SBA SIZE DEFINITIONS TO CONFORM TO AVAILABLE DATA

SIC	Industry	Affected Firm Size Class *	Sales per Employee in 20-99 Employee Group	Estimated Number of Employees at Class Limit	Approximated Class Size Limit
753	Automotive Repair Shops	$ 5 million	$ 89,691	56	19
754	Automotive Services, except Repair	$ 5 million	$ 33,092	151	99
762	Electrical Repair Shops	$ 5 million	$ 86,830	58	19
763	Watch, Clock, and Jewelry Repair	$ 5 million	NA	NA	19
769	Miscellaneous Repair Shops	$ 5 million	$ 91,007	55	19
794	Commercial Sports	$ 5 million	$176,962	28	19
799	Misc. Amusement & Recreation Svcs	$ 5 million	$ 42,873	117	99
805	Nursing and Personal Care Facilities	$ 5 million	$ 31,102	161	99
806	Hospitals	$ 5 million	$ 50,315	99	99
808	Home Health Care Services	$ 5 million	$ 39,175	128	99
833	Job Training and Related Services	$ 5 million	$ 35,204	142	99
836	Residential Care	$ 5 million	$ 34,361	146	99
842	Botanical and Zoological Gardens	$ 5 million	$ 48,064	104	99

* Dollar figures are for annual receipts.

NA = Not Applicable

Source: Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis

TABLE X-11

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR COVERED SMALL FIRMS, UNDER WORST CASE SCENARIOS

SIC	Industry	Small Business Definition*	Number of Affected Firms	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
07	Agricultural Services	$5 million	13,670	$24.73	$987,190	0.0025%	$59,231	0.042%
08	Forestry	$5 million	336	$26.21	$2,105,842	0.0012%	$65,281	0.040%
09	Fishing, Hunting, & Trapping	$3 million	161	$27.04	$2,584,497	0.0026%	$129,225	0.052%
13	Oil and Gas Extraction	500 employees	2,710	$31.36	$9,591,457	0.0003%	$489,164	0.006%
15	Gen. Contractors & Op. Builders	$17 million	23,352	$24.77	$5,151,861	0.0005%	$133,948	0.018%
16	Heavy Constr., except Building	$17 million	10,323	$24.56	$4,503,478	0.0005%	$171,132	0.014%
17	Special Trade Contractors	$7 million	69,229	$24.46	$2,124,066	0.0012%	$80,715	0.030%
20	Food and Kindred Products	500 employees	7,458	$29.91	$14,986,974	0.0002%	$299,739	0.010%
21	Tobacco Products	500 employees	34	$35.06	$29,572,735	*	$1,153,337	0.003%
22	Textile Mill Products	500 employees	2,432	$33.25	$8,159,577	0.0004%	$212,149	0.016%
23	Apparel & Other textile Products	500 employees	9,351	$31.31	$3,510,089	0.0009%	$87,752	0.036%
24	Lumber and Wood Products	500 employees	10,560	$27.92	$4,708,398	0.0006%	$169,502	0.016%
25	Furniture and Fixtures	500 employees	4,515	$28.67	$5,096,950	0.0006%	$158,005	0.018%
26	Paper and Allied Products	500 employees	2,724	$33.54	$12,075,394	0.0003%	$458,865	0.007%
27	Printing and Publishing	500 employees	16,857	$31.98	$4,482,306	0.0007%	$183,775	0.017%
28	Chemicals & Allied Products	500 employees	3,668	$37.29	$17,866,821	0.0002%	$750,407	0.005%
29	Petroleum & Coal Products	500 employees	530	$45.57	$28,919,179	0.0002%	$896,495	0.005%
30	Rubber & Misc. Plastics Pdts	500 employees	7,432	$31.24	$7,522,338	0.0004%	$270,804	0.012%
31	Leather and Leather Products	500 employees	695	$30.88	$4,943,160	0.0006%	$88,977	0.035%
32	Stone, Clay, & Glass Products	500 employees	5,293	$36.46	$5,529,515	0.0007%	$270,946	0.013%
33	Primary Metal. Industries	500 employees	2,948	$29.62	$11,867,260	0.0002%	$557,761	0.005%
34	Fabricated Metal Products	500 employees	16,731	$28.41	$5,979,978	0.0005%	$257,139	0.011%

TABLE X-11

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR COVERED SMALL FIRMS, UNDER WORST CASE SCENARIOS

SIC	Industry	Small Business Definition*	Number of Affected Firms	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
35	Industrial Machinery & Equipment	500 employees	21,451	$28.78	$5,070,462	0.0006%	$207,889	0.014%
36	Electronic and Other Electrical Equipment	500 employees	7,163	$32.43	$8,579,085	0.0004%	$428,954	0.008%
37	Transportation Equipment	500 employees	4,015	$ 26.52	$8,870,271	0.0003%	$354,811	0.007%
38	Instruments & Related Products	500 employees	4,213	$ 32.47	$7,392,197	0.0004%	$406,571	0.008%
39	Misc. Manufacturing Industries	500 employees	5,379	$ 29.47	$4,621,281	0.0006%	$152,502	0.019%
41	Local & Interurban Pass. Transit	$5 million	4,986	$ 27.09	$1,107,785	0.0024%	$65,359	0.041%
42	Trucking and Warehousing	$18.5 million	20,099	$27.34	$2,393,091	0.0011%	$86,151	0.032%
44	Water Transportation	500 employees	1,751	$32.20	$6,533,938	0.0005%	$326,697	0.010%
45	Transportation by Air	1500 employees	1,660	$35.67	$3,558,061	0.0010%	$145,880	0.024%
46	Pipelines, except Natural Gas	1500 employees	21	$101.30	$26,554,857	0.0004%	$1,301,188	0.008%
47	Transportation Services	$5 million	5,506	$36.47	$1,698,837	0.0021%	$54,363	0.067%
48	Communication	1500 employees	6,042	$36.51	$5,716,356	0.0006%	$382,996	0.010%
49	Electric, Gas, & Sanitary Svcs	$5 million	947	$28.00	$2,984,573	0.0009%	$268,612	0.010%
50	Wholesale Trade - Durables	100 employees	62,307	$32.89	$11,930,304	0.0003%	$286,327	0.011%
51	Wholesale Trade - Nondurables	100 employees	34,374	$30.78	$16,844,265	0.0002%	$303,197	0.010%
521	Lumber & Other Bldg Materials	$5 million	2,741	$26.94	$2,603,069	0.0010%	$49,458	0.054%
523	Paint, Glass & Wallpaper Stores	$5 million	577	$31.14	$1,722,688	0.0018%	$15,504	0.201%
526	Retail Nurseries & Garden Stores	$5 million	1,797	$26.58	$1,905,264	0.0020%	$41,916	0.092%
527	Mobile Home Dealers	$9.5 million	557	$28.98	$3,627,901	0.0008%	$105,209	0.027%
53	General Merchandise Stores	$5 million	986	$27.76	$4,174,173	0.0007%	$100,180	0.028%
541	Grocery Stores	$20 million	18,877	$30.99	$2,902,882	0.0011%	$34,835	0.089%
543	Fruit & Vegetable Markets	$5 million	237	$28.46	$2,771,857	0.0010%	$36,034	0.079%
553	Auto & Home Supply Stores	$5 million	3,264	$23.36	$1,453,195	0.0016%	$27,611	0.085%

TABLE X-11

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR COVERED SMALL FIRMS, UNDER WORST CASE SCENARIOS

SIC	Industry	Small Business Definition*	Number of Affected Firms	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
555	Boat Dealers	$5 million	592	$27.02	$4,343,588	0.0006%	$95,559	0.028%
556	Recreational Vehicle Dealers	$5 million	448	$36.04	$3,801,888	0.0009%	$64,632	0.056%
571	Furniture & Furnishings Stores	$5 million	5,174	$24.38	$1,731,758	0.0014%	$39,830	0.061%
572	Household Appliance Stores	$5 million	892	$25.13	$1,931,969	0.0013%	$44,435	0.057%
593	Used Merchandise Stores	$5 million	1,486	$63.93	$1,151,431	0.0056%	$52,966	0.121%
596	Nonstore Retailers	$5 million	2,234	$28.17	$1,738,348	0.0016%	$34,767	0.081%
598	Fuel Dealers	$5 million	1,156	$29.90	$2,380,413	0.0013%	$19,043	0.157%
651	Real Estate Oprs &Lessors	$5 million	4,854	$19.27	$2,113,760	0.0009%	$325,519	0.006%
655	Subdividers & Developers	$5 million	946	$21.16	$1,811,582	0.0012%	$164,854	0.013%
70	Hotels & Other Lodging Places	$5 million	13,280	$27.33	$1,213,073	0.0023%	$84,915	0.032%
721	Laundry, Cleaning & Garment Svcs	$5 million	8,218	$66.92	$823,024	0.0081%	$31,275	0.214%
734	Services to Buildings	$12 million	12,156	$46.16	$869,064	0.0053%	$32,155	0.144%
735	Misc. Equip. Rental & Leasing	$5 million	3,879	$73.79	$2,917,151	0.0025%	$268,378	0.027%
736	Personal Supply Services	$5 million	6,277	$47.92	$1,334,065	0.0036%	$40,022	0.120%
751	Automotive Rental & Leasing	$18.5 million	998	$35.46	$3,950,718	0.0009%	$225,191	0.016%
752	Automobile Parking	$5 million	438	$58.71	$1,946,436	0.0030%	$93,429	0.063%
753	Automotive Repair Shops	$5 million	12,372	$27.42	$1,405,287	0.0028%	$54,806	0.071%
754	Automotive Svcs, except Repair	$5 million	4,643	$31.54	$873,101	0.0036%	$56,752	0.056%
762	Electrical Repair Shops	$5 million	1,994	$27.68	$1,698,049	0.0026%	$44,149	0.099%
763	Watch, Clock & Jewelry Repair	$5 million	59	$32.89	$2,673,508	0.0012%	$90,899	0.036%
769	Miscellaneous Repair Shops	$5 million	5,231	$26.52	$1,772,231	0.0024%	$104,562	0.040%
794	Commercial Sports	$5 million	347	$25.93	$1,408,876	0.0018%	$50,720	0.051%
799	Misc. Amusement & Rec. Svcs	$5 million	13,777	$26.31	$1,255,992	0.0021%	$52,752	0.050%
805	Nursing & Personal Care Facilities	$5 million	5,202	$38.04	$1,597,604	0.0024%	$68,697	0.055%

TABLE X-11

ANNUAL COST OF THE FINAL RULE AS A PERCENT OF SALES AND PROFITS FOR COVERED SMALL FIRMS, UNDER WORST CASE SCENARIOS

SIC	Industry	Small Business Definition*	Number of Affected Firms	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
806	Hospitals	$5 million	580	$41.62	$3,146,674	0.0013%	$160,480	0.026%
808	Home Health Care Services	$5 million	3,834	$36.50	$1,508,924	0.0024%	$52,812	0.069%
833	Job Training & Related Svcs	$5 million	2,086	$64.80	$1,230,974	0.0053%	$30,774	0.211%
836	Residential Care	$5 million	6,253	$60.64	$1,003,036	0.0060%	$26,079	0.233%
842	Botanical & Zoological Gardens	$5 million	147	$88.76	$1,494,510	0.0059%	$91,165	0.097%
	All Covered Industries		541,988	$31.66				

* Dollar figures are for annual receipts.

Source: Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis

TABLE X-12

ANNUAL COST AS A PERCENT OF SALES AND PROFITS FOR FIRMS WITH 11-19 EMPLOYEES UNDER WORST CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
07	Agricultural Services	$ 25.15	$621,820	0.0040%	$37,309	0.067%
08	Forestry	$ 25.71	$1,393,764	0.0018%	$43,207	0.060%
09	Fishing, Hunting, & Trapping	$ 27.04	$1,038,708	0.0026%	$51,935	0.052%
13	Oil and Gas Extraction	$ 27.34	$2,868,080	0.0010%	$146,272	0.019%
15	Gen Contractors & Op Builders	$ 25.41	$2,580,143	0.0010%	$67,084	0.038%
16	Heavy Constr., except Building	$ 25.50	$2,090,243	0.0012%	$79,429	0.032%
17	Special Trade Contractors	$ 25.23	$1,131,469	0.0022%	$42,996	0.059%
20	Food and Kindred Pdts	$ 26.18	$2,531,479	0.0010%	$50,630	0.052%
22	Textile Mill Products	$ 27.09	$1,515,715	0.0018%	$39,409	0.069%
23	Apparel & Textile Pdts	$ 27.34	$938,592	0.0029%	$23,465	0.117%
24	Lumber and Wood Pdts	$ 25.94	$1,422,378	0.0018%	$51,206	0.051%
25	Furniture and Fixtures	$ 26.30	$1,115,791	0.0024%	$34,590	0.076%
26	Paper and Allied Pdts	$ 26.95	$1,936,363	0.0014%	$73,582	0.037%
27	Printing and Publishing	$ 27.33	$1,172,319	0.0023%	$48,065	0.057%
28	Chemicals & Allied Pdts	$ 27.73	$4,032,271	0.0007%	$169,355	0.016%
29	Petroleum & Coal Pdts	$ 28.84	$6,336,307	0.0005%	$196,426	0.015%
30	Rubber & Misc Plastics Pdts	$ 26.50	$1,679,865	0.0016%	$60,475	0.044%
32	Stone, Clay, & Glass Pdts	$ 26.50	$1,681,495	0.0016%	$82,393	0.032%
33	Primary Metal Industries	$ 25.94	$1,814,577	0.0014%	$85,285	0.030%
34	Fabricated Metal Pdts	$ 26.05	$1,444,760	0.0018%	$62,125	0.042%
35	Industrial Machinery & Equ't	$ 26.51	$1,279,056	0.0021%	$52,441	0.051%

TABLE X-12

ANNUAL COST AS A PERCENT OF SALES AND PROFITS FOR FIRMS WITH 11-19 EMPLOYEES UNDER WORST CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
36	Electronic & Electrical Equ't	$ 27.24	$1,603,741	0.0017%	$80,187	0.034%
37	Transportation Equipment	$ 25.65	$1,568,481	0.0016%	$62,739	0.041%
38	Instruments & Related Pdts	$ 27.70	$1,691,768	0.0016%	$93,047	0.030%
39	Misc. Mfg Industries	$ 26.89	$1,297,254	0.0021%	$42,809	0.063%
41	Local Passenger. Transit	$ 26.11	$483,512	0.0054%	$28,527	0.092%
42	Trucking & Warehousing	$ 26.29	$1,289,953	0.0020%	$46,438	0.057%
44	Water Transportation	$ 27.15	$1,849,451	0.0015%	$92,473	0.029%
47	Transportation Svs	$ 30.57	$932,566	0.0033%	$29,842	0.102%
48	Communication	$ 27.69	$1,590,405	0.0017%	$106,557	0.026%
49	Electric, Gas, & Sanitary Svs	$ 28.00	$2,984,573	0.0009%	$268,612	0.010%
50	Wholesale Trade - Durables	$ 28.01	$5,528,464	0.0005%	$132,683	0.021%
51	Wholesale Trade - Nondurables	$ 27.69	$8,321,447	0.0003%	$149,786	0.018%
521	Lumber & Other Bldg Mat'ls	$ 26.94	$2,603,069	0.0010%	$49,458	0.054%
523	Paint, Glass & Wallpaper Stores	$ 31.14	$1,722,688	0.0018%	$15,504	0.201%
526	Retail Nurseries & Gdn Stores	$ 26.58	$1,314,022	0.0020%	$28,908	0.092%
527	Mobile Home Dealers	$ 28.70	$3,627,901	0.0008%	$105,209	0.027%
53	General Merchandise Stores	$ 27.76	$1,322,364	0.0021%	$31,737	0.087%
541	Grocery Stores	$ 27.50	$1,415,207	0.0019%	$16,982	0.162%
543	Fruit & Vegetable Markets	$ 28.46	$2,771,857	0.0010%	$36,034	0.079%
553	Auto & Home Supply Stores	$ 23.36	$1,453,195	0.0016%	$27,611	0.085%
555	Boat Dealers	$ 27.02	$4,343,588	0.0006%	$95,559	0.028%

TABLE X-12

ANNUAL COST AS A PERCENT OF SALES AND PROFITS FOR FIRMS WITH 11-19 EMPLOYEES UNDER WORST CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
556	Recreational Vehicle Dealers	$36.04	$3,801,888	0.0009%	$64,632	0.056%
571	Furniture & Furnishings Stores	$24.38	$1,731,758	0.0014%	$39,830	0.061%
572	Household Appliance Stores	$25.13	$1,931,969	0.0013%	$44,435	0.057%
593	Used Merchandise Stores	$16.15	$818,933	0.0020%	$37,671	0.043%
596	Nonstore Retailers	$28.17	$1,738,348	0.0016%	$34,767	0.081%
598	Fuel Dealers	$29.90	$2,380,413	0.0013%	$19,043	0.157%
651	Real Estate Oprs & Lessors	$19.27	$2,113,760	0.0009%	$325,519	0.006%
655	Subdividers & Developers	$21.16	$1,811,582	0.0012%	$164,854	0.013%
70	Hotels & Other Lodging Places	$26.54	$613,072	0.0043%	$42,915	0.062%
721	Laundry, Cleaning Svcs	$27.51	$444,393	0.0062%	$16,887	0.163%
734	Services to Buildings	$24.14	$390,494	0.0062%	$14,448	0.167%
735	Misc. Equ't. Rental & Leasing	$34.05	$1,552,492	0.0022%	$142,829	0.024%
736	Personal Supply Services	$32.04	$835,157	0.0038%	$25,055	0.128%
751	Automotive Rental & Leasing	$29.52	$2,284,946	0.0013%	$130,242	0.023%
752	Automobile Parking	$36.38	$1,050,921	0.0035%	$50,444	0.072%
753	Automotive Repair Shops	$27.42	$992,563	0.0028%	$38,710	0.071%
754	Automotive Svs, exc Repair	$28.35	$596,943	0.0048%	$38,801	0.073%
762	Electrical Repair Shops	$27.68	$1,073,521	0.0026%	$27,912	0.099%
763	Watch, Clock, Jewelry Repair	$32.89	$2,673,508	0.0012%	$90,899	0.036%
769	Miscellaneous Repair Shops	$26.52	$1,111,697	0.0024%	$65,590	0.040%
794	Commercial Sports	$25.93	$1,408,876	0.0018%	$50,720	0.051%

TABLE X-12

ANNUAL COST AS A PERCENT OF SALES AND PROFITS FOR FIRMS WITH 11-19 EMPLOYEES UNDER WORST CASE SCENARIOS

SIC	Industry	Average Cost per Firm	Average Sales per Firm	Cost as a Percent of Sales	Average Profit per Firm	Cost as a Percent of Profits
799	Misc Amusement & Rec. Svcs	$26.28	$654,250	0.0040%	$27,478	0.096%
805	Nursing & Personal Care Fac's	$29.68	$577,018	0.0051%	$24,812	0.120%
806	Hospitals	$32.49	$732,676	0.0044%	$37,366	0.087%
808	Home Health Care Svcs	$30.07	$758,133	0.0040%	$26,535	0.113%
833	Job Training & Related Svcs	$42.69	$643,890	0.0066%	$16,097	0.265%
836	Residential Care	$40.83	$388,540	0.0105%	$10,102	0.404%
842	Botanical & Zoological Gdns	$43.84	$722,554	0.0061%	$44,076	0.099%
	All Covered Industries	$29.99				

Source: Department of Labor, Occupational Safety and Health Administration, Office of Regulatory Analysis

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Regulatory Flexibility Analysis

Although a Final Regulatory Flexibility Analysis is not required in this case, OSHA has chosen to include the elements of a final regulatory flexibility analysis in this document. The elements of a Final Regulatory Flexibility Analysis are:

- A succinct statement of the need for, and the objective of, the rule;
- A summary of significant issues raised by the public comments in response to the initial regulatory flexibility analysis, a summary of the assessment of the Agency of such issues, and a statement of any changes made to the proposed rule as a result of such comments;
- A description of and estimate of the number of small entities to which the rule will apply or an explanation of why no such explanation is available;
- A description of the projected reporting, recordkeeping and other compliance requirements of the rule, including an estimate of the classes of small entities that will be subject to the rule's requirements and the types of professional skills necessary for preparation of the record or report;
- A description of the steps the Agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each of the other significant alternatives considered by the agency was rejected.

The Regulatory Flexibility Act states that the Regulatory Flexibility Analysis (RFA) need not contain all of the above elements *in toto* if these elements are presented elsewhere in the documentation and analysis of the regulation. This analysis will follow this approach and refer the reader to other documentation for some of the above elements.

Need for and objectives of the rule. The need for the final rule and its objectives are discussed in the introductory sections of the preamble.

The number of small entities to which the rule will apply. As shown in Table X–11, the final rule will impact 541,988 firms defined as small firms by the SBA.

The compliance requirements of the final rule. The compliance requirements of the final rule are discussed in the summary and explanation section of the preamble, which discusses each requirement in detail.

Steps taken to minimize the impact of the rule on small entities. The final Part 1904 rule minimizes the impact on small entities in two ways. First, all employers who had fewer than 11 workers at all times during the previous year are exempt from keeping Part 1904 records of occupational injuries and illnesses, unless specifically asked to do so by the government. Second, the final rule exempts employers classified in certain industries in the services and retail sectors. These industry-exempt employers are also not required to keep records unless asked to do so by the government. The effect of the size and industry exemptions is that more than 4.5 million of the Nation's 6 million business establishments are exempted from keeping OSHA Part 1904 records on a routine basis.

OSHA considered several alternatives to exempting employers based on size and/or industry classification. A discussion of these alternatives, and why OSHA chose the alternative in the final rule, can be found in the preamble discussion for Subpart B, Scope.

XI. Regulatory Flexibility Certification

Based on OSHA's analysis of small business impacts (Tables X–11 and X–12), OSHA certifies that this final rule will not have a significant impact on a substantial number of small entities. OSHA makes this certification to fulfill its obligations under the Regulatory Flexibility Act (as amended in 1996).

XII. Environmental Impact Assessment

In accordance with the requirements of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 *et seq.*), Council on Environmental Quality NEPA regulations (40 CFR part 1500 *et seq.*), and the Department of Labor's NEPA regulations (29 CFR part 11), the Assistant Secretary has determined that this final rule will not have a significant impact on the external environment.

XIII. Federalism

This final rule has been reviewed in accordance with Executive Order 13132 (52 FR 41685), regarding Federalism. Because this rulemaking action involves a ''regulation'' issued under section 8 of the OSH Act, and not a ''standard'' issued under section 6 of the Act, the rule does not preempt State law, see 29 U.S.C. § 667 (a). The effect of the final rule on States is discussed above in Section VI, *State Plans.*

XIV. Paperwork Reduction Act of 1995

The final regulation contains information collections which are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995. Most of the provisions of the final rule contain collection of information requirements, either to keep records or to report information from the records to the government. In addition, the effort employers are required to put forth to learn the requirements are considered information requirements.

In response to OSHA's 1996 proposal, the public submitted 450 written comments . The Agency also held two public meetings where it collected oral comments from 43 individuals and groups during six days of informal meetings.

In summary, OSHA estimates that there are 1,365,985 establishments that will be required to keep records of occupational injuries and illnesses under the provisions. A total of approximately 4,500,000 hours will be needed for employers to comply with the information collection requirements for the first year, and 3,500,000 hours in each subsequent year. This represents an increase of 1,060,000 hours from the previous paperwork burden estimates. OSHA has recently recognized that previous estimates of the burden associated with becoming familiar with the 1904 rule have been understated, and recently corrected those estimates, as noted in OSHA's Final Economic Analysis for the Part 1904 rule.

In accordance with the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3520), OSHA has requested OMB approval of the collection of information requirement described above. The information collection provisions will take effect when OMB approves them under the PRA.

XV. Authority

This document was prepared under the direction of Charles N. Jeffress, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210.

List of Subjects

29 CFR Part 1904

Health statistics, Occupational safety and health, Reporting and recordkeeping requirements, State plans.

29 CFR Part 1952

Health statistics, Intergovernmental relations, Occupational safety and health, Reporting and recordkeeping requirements, State plans.

Accordingly, pursuant to sections 8(c), 8(g), 20 and 24 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 657, 673), Secretary of Labor's Order No. 1–90 (55 FR 9033), and 5 U.S.C. 553, the Department amends 29 CFR Chapter XVII as set forth below.

Signed in Washington, D.C., this 5th day of January, 2001.

Charles N. Jeffress,

Assistant Secretary of Labor.

1. 29 CFR Part 1904 is revised to read as follows:

Part 1904—Recording and Reporting Occupational Injuries and Illnesses

Sec.

Subpart A—Purpose

1904.0 Purpose

Subpart B—Scope

1904.1 Partial exemption for employers with 10 or fewer employees.
1904.2 Partial exemption for establishments in certain industries.
1904.3 Keeping records for more than one agency.
Non-mandatory Appendix A to Subpart B—Partially Exempt Industries.

Subpart C—Recordkeeping Forms and Recording Criteria

1904.4 Recording criteria.
1904.5 Determination of work-relatedness.
1904.6 Determination of new cases.
1904.7 General recording criteria.
1904.8 Recording criteria for needlestick and sharps injuries.
1904.9 Recording criteria for cases involving medical removal under OSHA standards.
1904.10 Recording criteria for cases involving occupational hearing loss.
1904.11 Recording criteria for work-related tuberculosis cases.
1904.12 Recording criteria for cases involving work-related musculoskeletal disorders.
1904.13–1904.28 [Reserved]
1904.29 Forms.

Subpart D—Other OSHA Injury and Illness Recordkeeping Requirements

1904.30 Multiple business establishments.
1904.31 Covered employees.
1904.32 Annual summary.
1904.33 Retention and updating.
1904.34 Change in business ownership.
1904.35 Employee involvement.
1904.36 Prohibition against discrimination.
1904.37 State recordkeeping regulations.
1904.38 Variances from the recordkeeping rule.

Subpart E—Reporting Fatality, Injury and Illness Information to the Government

1904.39 Reporting fatalities and multiple hospitalization incidents to OSHA.
1904.40 Providing records to government representatives.
1904.41 Annual OSHA Injury and Illness Survey of Ten or More Employers.
1904.42 Requests from the Bureau of Labor Statistics for data.

Subpart F—Transition From the Former Rule

1904.43 Summary and posting of year 2000 data.
1904.44 Retention and updating of old forms.
1904.45 OMB control numbers under the Paperwork Reduction Act

Subpart G—Definitions

1904.46 Definitions.

Authority: 29 U.S.C. 657, 658, 660, 666, 669, 673, Secretary of Labor's Order No. 1–90 (55 FR 9033), and 5 U.S.C. 553.

Subpart A—Purpose

§ 1904.0 Purpose.

The purpose of this rule (Part 1904) is to require employers to record and report work-related fatalities, injuries and illnesses.

Note to § 1904.0: Recording or reporting a work-related injury, illness, or fatality does not mean that the employer or employee was at fault, that an OSHA rule has been violated, or that the employee is eligible for workers' compensation or other benefits.

Subpart B—Scope

Note to Subpart B: All employers covered by the Occupational Safety and Health Act (OSH Act) are covered by these Part 1904 regulations. However, most employers do not have to keep OSHA injury and illness records unless OSHA or the Bureau of Labor Statistics (BLS) informs them in writing that they must keep records. For example, employers with 10 or fewer employees and business establishments in certain industry classifications are partially exempt from keeping OSHA injury and illness records.

§ 1904.1 Partial exemption for employers with 10 or fewer employees.

(a) *Basic requirement.* (1) If your company had ten (10) or fewer employees at all times during the last calendar year, you do not need to keep OSHA injury and illness records unless OSHA or the BLS informs you in writing that you must keep records under § 1904.41 or § 1904.42. However, as required by § 1904.39, all employers covered by the OSH Act must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees.

(2) If your company had more than ten (10) employees at any time during the last calendar year, you must keep OSHA injury and illness records unless your establishment is classified as a partially exempt industry under § 1904.2.

(b) *Implementation.* (1) *Is the partial exemption for size based on the size of my entire company or on the size of an individual business establishment?* The partial exemption for size is based on the number of employees in the entire company.

(2) *How do I determine the size of my company to find out if I qualify for the partial exemption for size?* To determine if you are exempt because of size, you need to determine your company's peak employment during the last calendar year. If you had no more than 10 employees at any time in the last calendar year, your company qualifies for the partial exemption for size.

§ 1904.2 Partial exemption for establishments in certain industries.

(a) *Basic requirement.* (1) If your business establishment is classified in a specific low hazard retail, service, finance, insurance or real estate industry listed in Appendix A to this Subpart B, you do not need to keep OSHA injury and illness records unless the government asks you to keep the records under § 1904.41 or § 1904.42. However, all employers must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees (see § 1904.39).

(2) If one or more of your company's establishments are classified in a non-exempt industry, you must keep OSHA injury and illness records for all of such establishments unless your company is partially exempted because of size under § 1904.1.

(b) *Implementation.* (1) *Does the partial industry classification exemption apply only to business establishments in the retail, services, finance, insurance or real estate industries (SICs 52–89)?* Yes, business establishments classified in agriculture; mining; construction; manufacturing; transportation; communication, electric, gas and sanitary services; or wholesale trade are not eligible for the partial industry classification exemption.

(2) *Is the partial industry classification exemption based on the industry classification of my entire company or on the classification of individual business establishments operated by my company?* The partial industry classification exemption applies to individual business establishments. If a company has several business establishments engaged in different classes of business activities, some of the company's establishments may be required to keep records, while others may be exempt.

(3) *How do I determine the Standard Industrial Classification code for my company or for individual establishments?* You determine your Standard Industrial Classification (SIC) code by using the Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget. You may contact your nearest OSHA office or State agency for help in determining your SIC.

§ 1904.3 Keeping records for more than one agency.

If you create records to comply with another government agency's injury and illness recordkeeping requirements, OSHA will consider those records as meeting OSHA's Part 1904 recordkeeping requirements if OSHA accepts the other agency's records under a memorandum of understanding with that agency, or if the other agency's records contain the same information as this Part 1904 requires you to record. You may contact your nearest OSHA office or State agency for help in determining whether your records meet OSHA's requirements.

Non-Mandatory Appendix A to Subpart B—Partially Exempt Industries

Employers are not required to keep OSHA injury and illness records for any establishment classified in the following Standard Industrial Classification (SIC) codes, unless they are asked in writing to do so by OSHA, the Bureau of Labor Statistics (BLS), or a state agency operating under the authority of OSHA or the BLS. All employers, including those partially exempted by reason of company size or industry classification, must report to OSHA any workplace incident that results in a fatality or the hospitalization of three or more employees (see § 1904.39).

SIC code	Industry description	SIC code	Industry description
525	Hardware Stores	725	Shoe Repair and Shoeshine Parlors.
542	Meat and Fish Markets	726	Funeral Service and Crematories.
544	Candy, Nut, and Confectionery Stores	729	Miscellaneous Personal Services.
545	Dairy Products Stores	731	Advertising Services.
546	Retail Bakeries	732	Credit Reporting and Collection Services.
549	Miscellaneous Food Stores	733	Mailing, Reproduction, & Stenographic Services.
551	New and Used Car Dealers	737	Computer and Data Processing Services.
552	Used Car Dealers	738	Miscellaneous Business Services.
554	Gasoline Service Stations	764	Reupholstery and Furniture Repair.
557	Motorcycle Dealers	78	Motion Picture.
56	Apparel and Accessory Stores	791	Dance Studios, Schools, and Halls.
573	Radio, Television, & Computer Stores	792	Producers, Orchestras, Entertainers.
58	Eating and Drinking Places	793	Bowling Centers.
591	Drug Stores and Proprietary Stores	801	Offices & Clinics Of Medical Doctors.
592	Liquor Stores	802	Offices and Clinics Of Dentists.
594	Miscellaneous Shopping Goods Stores	803	Offices Of Osteopathic.
599	Retail Stores, Not Elsewhere Classified	804	Offices Of Other Health Practitioners.
60	Depository Institutions (banks & savings institutions)	807	Medical and Dental Laboratories.
61	Nondepository	809	Health and Allied Services, Not Elsewhere Classified.
62	Security and Commodity Brokers	81	Legal Services.
63	Insurance Carriers	82	Educational Services (schools, colleges, universities and libraries).
64	Insurance Agents, Brokers & Services	832	Individual and Family Services.
653	Real Estate Agents and Managers	835	Child Day Care Services.
654	Title Abstract Offices	839	Social Services, Not Elsewhere Classified.
67	Holding and Other Investment Offices	841	Museums and Art Galleries.
722	Photographic Studios, Portrait	86	Membership Organizations.
723	Beauty Shops	87	Engineering, Accounting, Research, Management, and Related Services.
724	Barber Shops	899	Services, not elsewhere classified.

Subpart C—Recordkeeping Forms and Recording Criteria

Note to Subpart C: This Subpart describes the work-related injuries and illnesses that an employer must enter into the OSHA records and explains the OSHA forms that employers must use to record work-related fatalities, injuries, and illnesses.

§ 1904.4 Recording criteria.

(a) *Basic requirement.* Each employer required by this Part to keep records of fatalities, injuries, and illnesses must record each fatality, injury and illness that:

(1) Is work-related; and

(2) Is a new case; and

(3) Meets one or more of the general recording criteria of § 1904.7 or the application to specific cases of § 1904.8 through § 1904.12.

(b) *Implementation.* (1) *What sections of this rule describe recording criteria for recording work-related injuries and illnesses?* The table below indicates which sections of the rule address each topic.

(i) Determination of work-relatedness. See § 1904.5.

(ii) Determination of a new case. See § 1904.6.

(iii) General recording criteria. See § 1904.7.

(iv) Additional criteria. (Needlestick and sharps injury cases, tuberculosis cases, hearing loss cases, medical removal cases, and musculoskeletal disorder cases). See § 1904.8 through § 1904.12.

(2) *How do I decide whether a particular injury or illness is recordable?* The decision tree for recording work-related injuries and illnesses below shows the steps involved in making this determination.

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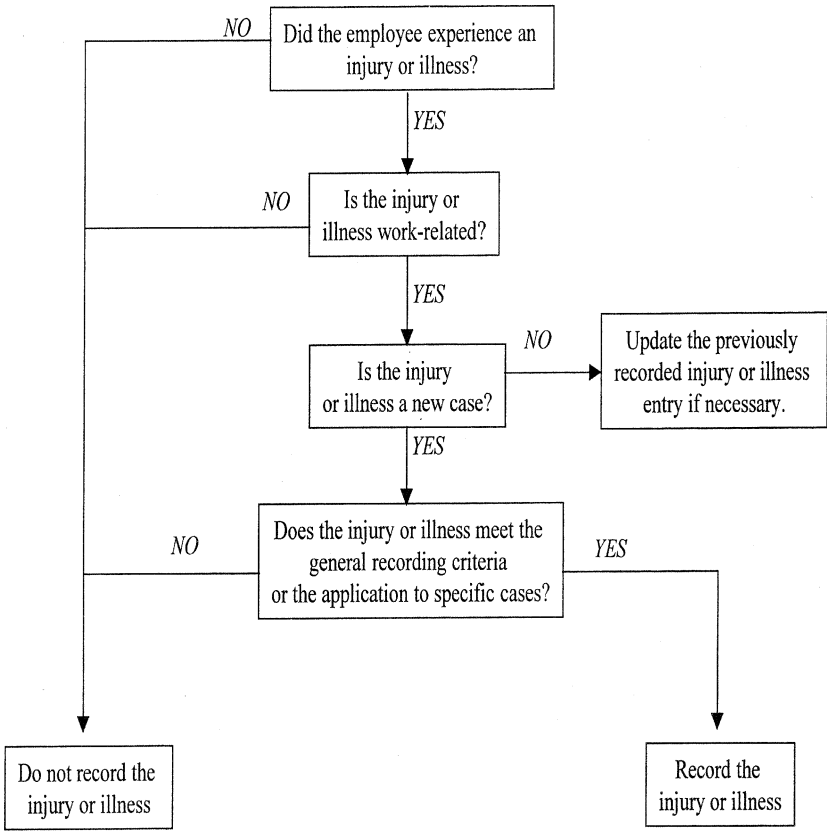

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§ 1904.5 Determination of work-relatedness.

(a) *Basic requirement.* You must consider an injury or illness to be work-related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, unless an exception in § 1904.5(b)(2) specifically applies.

(b) *Implementation.* (1) What is the ''work environment''? OSHA defines the work environment as ''the establishment and other locations where one or more employees are working or are present as a condition of their employment. The work environment includes not only physical locations, but also the equipment or materials used by the employee during the course of his or her work.''

(2) *Are there situations where an injury or illness occurs in the work environment and is not considered work-related?* Yes, an injury or illness occurring in the work environment that falls under one of the following exceptions is not work-related, and therefore is not recordable.

1904.5(b)(2)	You are not required to record injuries and illnesses if . . .
(i)	At the time of the injury or illness, the employee was present in the work environment as a member of the general public rather than as an employee.
(ii)	The injury or illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.
(iii)	The injury or illness results solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity such as blood donation, physical examination, flu shot, exercise class, racquetball, or baseball.
(iv)	The injury or illness is solely the result of an employee eating, drinking, or preparing food or drink for personal consumption (whether bought on the employer's premises or brought in). For example, if the employee is injured by choking on a sandwich while in the employer's establishment, the case would not be considered work-related. **Note:** If the employee is made ill by ingesting food contaminated by workplace contaminants (such as lead), or gets food poisoning from food supplied by the employer, the case would be considered work-related.
(v)	The injury or illness is solely the result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours.
(vi)	The injury or illness is solely the result of personal grooming, self medication for a non-work-related condition, or is intentionally self-inflicted.
(vii)	The injury or illness is caused by a motor vehicle accident and occurs on a company parking lot or company access road while the employee is commuting to or from work.
(viii)	The illness is the common cold or flu (Note: contagious diseases such as tuberculosis, brucellosis, hepatitis A, or plague are considered work-related if the employee is infected at work).

1904.5(b)(2)	You are not required to record injuries and illnesses if . . .
(ix)	The illness is a mental illness. Mental illness will not be considered work-related unless the employee voluntarily provides the employer with an opinion from a physician or other licensed health care professional with appropriate training and experience (psychiatrist, psychologist, psychiatric nurse practitioner, etc.) stating that the employee has a mental illness that is work-related.

(3) *How do I handle a case if it is not obvious whether the precipitating event or exposure occurred in the work environment or occurred away from work?* In these situations, you must evaluate the employee's work duties and environment to decide whether or not one or more events or exposures in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing condition.

(4) *How do I know if an event or exposure in the work environment ''significantly aggravated'' a preexisting injury or illness?* A preexisting injury or illness has been significantly aggravated, for purposes of OSHA injury and illness recordkeeping, when an event or exposure in the work environment results in any of the following:

(i) Death, provided that the preexisting injury or illness would likely not have resulted in death but for the occupational event or exposure.

(ii) Loss of consciousness, provided that the preexisting injury or illness would likely not have resulted in loss of consciousness but for the occupational event or exposure.

(iii) One or more days away from work, or days of restricted work, or days of job transfer that otherwise would not have occurred but for the occupational event or exposure.

(iv) Medical treatment in a case where no medical treatment was needed for the injury or illness before the workplace event or exposure, or a change in medical treatment was necessitated by the workplace event or exposure.

(5) *Which injuries and illnesses are considered pre-existing conditions?* An injury or illness is a preexisting condition if it resulted solely from a non-work-related event or exposure that occured outside the work environment.

(6) *How do I decide whether an injury or illness is work-related if the employee is on travel status at the time the injury or illness occurs?* Injuries and illnesses that occur while an employee is on travel status are work-related if, at the time of the injury or illness, the employee was engaged in work activities ''in the interest of the employer.'' Examples of such activities include travel to and from customer contacts, conducting job tasks, and entertaining or being entertained to transact, discuss, or promote business (work-related entertainment includes only entertainment activities being engaged in at the direction of the employer).

Injuries or illnesses that occur when the employee is on travel status do not have to be recorded if they meet one of the exceptions listed below.

1904.5 (b)(6)	If the employee has . . .	You may use the following to determine if an injury or illness is work-related
(i)	checked into a hotel or motel for one or more days.	When a traveling employee checks into a hotel, motel, or into a other temporary residence, he or she establishes a ''home away from home.'' You must evaluate the employee's activities after he or she checks into the hotel, motel, or other temporary residence for their work-relatedness in the same manner as you evaluate the activities of a non-traveling employee. When the employee checks into the temporary residence, he or she is considered to have left the work environment. When the employee begins work each day, he or she re-enters the work environment. If the employee has established a ''home away from home'' and is reporting to a fixed worksite each day, you also do not consider injuries or illnesses work-related if they occur while the employee is commuting between the temporary residence and the job location.
(ii)	taken a detour for personal reasons.	Injuries or illnesses are not considered work-related if they occur while the employee is on a personal detour from a reasonably direct route of travel (*e.g.*, has taken a side trip for personal reasons).

(7) *How do I decide if a case is work-related when the employee is working at home?* Injuries and illnesses that occur while an employee is working at home, including work in a home office, will be considered work-related if the injury or illness occurs while the employee is performing work for pay or compensation in the home, and the injury or illness is directly related to the performance of work rather than to the general home environment or setting. For example, if an employee drops a box of work documents and injures his or her foot, the case is considered work-related. If an employee's fingernail is punctured by a needle from a sewing machine used to perform garment work at home, becomes infected and requires medical treatment, the injury is considered work-related. If an employee is injured because he or she trips on the family dog while rushing to answer a work phone call, the case is not considered work-related. If an employee working at home is electrocuted because of faulty home wiring, the injury is not considered work-related.

§ 1904.6 Determination of new cases.

(a) *Basic requirement.* You must consider an injury or illness to be a ''new case'' if:

(1) The employee has not previously experienced a recorded injury or illness of the same type that affects the same part of the body, or

(2) The employee previously experienced a recorded injury or illness of the same type that affected the same part of the body but had recovered completely (all signs and symptoms had disappeared) from the previous injury or illness and an event or exposure in the work environment caused the signs or symptoms to reappear.

(b) *Implementation.* (1) *When an employee experiences the signs or symptoms of a chronic work-related illness, do I need to consider each recurrence of signs or symptoms to be a new case?* No, for occupational illnesses where the signs or symptoms may recur or continue in the absence of an exposure in the workplace, the case must only be recorded once. Examples

may include occupational cancer, asbestosis, byssinosis and silicosis.

(2) *When an employee experiences the signs or symptoms of an injury or illness as a result of an event or exposure in the workplace, such as an episode of occupational asthma, must I treat the episode as a new case?* Yes, because the episode or recurrence was caused by an event or exposure in the workplace, the incident must be treated as a new case.

(3) *May I rely on a physician or other licensed health care professional to determine whether a case is a new case or a recurrence of an old case?* You are not required to seek the advice of a physician or other licensed health care professional. However, if you do seek such advice, you must follow the physician or other licensed health care professional's recommendation about whether the case is a new case or a recurrence. If you receive recommendations from two or more physicians or other licensed health care professionals, you must make a decision as to which recommendation is the most authoritative (best documented, best reasoned, or most authoritative), and record the case based upon that recommendation.

§ 1904.7 General recording criteria.

(a) *Basic requirement.* You must consider an injury or illness to meet the general recording criteria, and therefore to be recordable, if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. You must also consider a case to meet the general recording criteria if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

(b) *Implementation.* (1) *How do I decide if a case meets one or more of the general recording criteria?* A work-related injury or illness must be recorded if it results in one or more of the following:

(i) Death. See § 1904.7(b)(2).

(ii) Days away from work. See § 1904.7(b)(3).

(iii) Restricted work or transfer to another job. See § 1904.7(b)(4).

(iv) Medical treatment beyond first aid. See § 1904.7(b)(5).

(v) Loss of consciousness. See § 1904.7(b)(6).

(vi) A significant injury or illness diagnosed by a physician or other licensed health care professional. See § 1904.7(b)(7).

(2) *How do I record a work-related injury or illness that results in the employee's death?* You must record an injury or illness that results in death by entering a check mark on the OSHA 300 Log in the space for cases resulting in death. You must also report any work-related fatality to OSHA within eight (8) hours, as required by § 1904.39.

(3) *How do I record a work-related injury or illness that results in days away from work?* When an injury or illness involves one or more days away from work, you must record the injury or illness on the OSHA 300 Log with a check mark in the space for cases involving days away and an entry of the number of calendar days away from work in the number of days column. If the employee is out for an extended period of time, you must enter an estimate of the days that the employee will be away, and update the day count when the actual number of days is known.

(i) *Do I count the day on which the injury occurred or the illness began?* No, you begin counting days away on the day after the injury occurred or the illness began.

(ii) *How do I record an injury or illness when a physician or other licensed health care professional recommends that the worker stay at home but the employee comes to work anyway?* You must record these injuries and illnesses on the OSHA 300 Log using the check box for cases with days away from work and enter the number of calendar days away recommended by the physician or other licensed health care professional. If a physician or other licensed health care professional recommends days away, you should encourage your employee to follow that recommendation. However, the days away must be recorded whether the injured or ill employee follows the physician or licensed health care professional's recommendation or not. If you receive recommendations from two or more physicians or other licensed health care professionals, you may make a decision as to which recommendation is the most authoritative, and record the case based upon that recommendation.

(iii) *How do I handle a case when a physician or other licensed health care professional recommends that the worker return to work but the employee stays at home anyway?* In this situation, you must end the count of days away from work on the date the physician or other licensed health care professional recommends that the employee return to work.

(iv) *How do I count weekends, holidays, or other days the employee would not have worked anyway?* You must count the number of calendar days the employee was unable to work as a result of the injury or illness, regardless of whether or not the employee was scheduled to work on those day(s). Weekend days, holidays, vacation days or other days off are included in the total number of days recorded if the employee would not have been able to work on those days because of a work-related injury or illness.

(v) *How do I record a case in which a worker is injured or becomes ill on a Friday and reports to work on a Monday, and was not scheduled to work on the weekend?* You need to record this case only if you receive information from a physician or other licensed health care professional indicating that the employee should not have worked, or should have performed only restricted work, during the weekend. If so, you must record the injury or illness as a case with days away from work or restricted work, and enter the day counts, as appropriate.

(vi) *How do I record a case in which a worker is injured or becomes ill on the day before scheduled time off such as a holiday, a planned vacation, or a temporary plant closing?* You need to record a case of this type only if you receive information from a physician or other licensed health care professional indicating that the employee should not have worked, or should have performed only restricted work, during the scheduled time off. If so, you must record the injury or illness as a case with days away from work or restricted work, and enter the day counts, as appropriate.

(vii) *Is there a limit to the number of days away from work I must count?* Yes, you may ''cap'' the total days away at 180 calendar days. You are not required to keep track of the number of calendar days away from work if the injury or illness resulted in more than 180 calendar days away from work and/or days of job transfer or restriction. In such a case, entering 180 in the total days away column will be considered adequate.

(viii) *May I stop counting days if an employee who is away from work because of an injury or illness retires or leaves my company?* Yes, if the employee leaves your company for some reason unrelated to the injury or illness, such as retirement, a plant closing, or to take another job, you may stop counting days away from work or days of restriction/job transfer. If the employee leaves your company because of the injury or illness, you must estimate the

total number of days away or days of restriction/job transfer and enter the day count on the 300 Log.

(ix) *If a case occurs in one year but results in days away during the next calendar year, do I record the case in both years?* No, you only record the injury or illness once. You must enter the number of calendar days away for the injury or illness on the OSHA 300 Log for the year in which the injury or illness occurred. If the employee is still away from work because of the injury or illness when you prepare the annual summary, estimate the total number of calendar days you expect the employee to be away from work, use this number to calculate the total for the annual summary, and then update the initial log entry later when the day count is known or reaches the 180-day cap.

(4) *How do I record a work-related injury or illness that results in restricted work or job transfer?* When an injury or illness involves restricted work or job transfer but does not involve death or days away from work, you must record the injury or illness on the OSHA 300 Log by placing a check mark in the space for job transfer or restriction and an entry of the number of restricted or transferred days in the restricted workdays column.

(i) *How do I decide if the injury or illness resulted in restricted work?* Restricted work occurs when, as the result of a work-related injury or illness:

(A) You keep the employee from performing one or more of the routine functions of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work; or

(B) A physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled to work.

(ii) *What is meant by ''routine functions''?* For recordkeeping purposes, an employee's routine functions are those work activities the employee regularly performs at least once per week.

(iii) *Do I have to record restricted work or job transfer if it applies only to the day on which the injury occurred or the illness began?* No, you do not have to record restricted work or job transfers if you, or the physician or other licensed health care professional, impose the restriction or transfer only for the day on which the injury occurred or the illness began.

(iv) *If you or a physician or other licensed health care professional recommends a work restriction, is the injury or illness automatically recordable as a ''restricted work'' case?* No, a recommended work restriction is recordable only if it affects one or more of the employee's routine job functions. To determine whether this is the case, you must evaluate the restriction in light of the routine functions of the injured or ill employee's job. If the restriction from you or the physician or other licensed health care professional keeps the employee from performing one or more of his or her routine job functions, or from working the full workday the injured or ill employee would otherwise have worked, the employee's work has been restricted and you must record the case.

(v) *How do I record a case where the worker works only for a partial work shift because of a work-related injury or illness?* A partial day of work is recorded as a day of job transfer or restriction for recordkeeping purposes, except for the day on which the injury occurred or the illness began.

(vi) *If the injured or ill worker produces fewer goods or services than he or she would have produced prior to the injury or illness but otherwise performs all of the routine functions of his or her work, is the case considered a restricted work case?* No, the case is considered restricted work only if the worker does not perform all of the routine functions of his or her job or does not work the full shift that he or she would otherwise have worked.

(vii) *How do I handle vague restrictions from a physician or other licensed health care professional, such as that the employee engage only in ''light duty'' or ''take it easy for a week''?* If you are not clear about the physician or other licensed health care professional's recommendation, you may ask that person whether the employee can do all of his or her routine job functions and work all of his or her normally assigned work shift. If the answer to both of these questions is ''Yes,'' then the case does not involve a work restriction and does not have to be recorded as such. If the answer to one or both of these questions is ''No,'' the case involves restricted work and must be recorded as a restricted work case. If you are unable to obtain this additional information from the physician or other licensed health care professional who recommended the restriction, record the injury or illness as a case involving restricted work.

(viii) *What do I do if a physician or other licensed health care professional recommends a job restriction meeting OSHA's definition, but the employee does all of his or her routine job functions anyway?* You must record the injury or illness on the OSHA 300 Log as a restricted work case. If a physician or other licensed health care professional recommends a job restriction, you should ensure that the employee complies with that restriction. If you receive recommendations from two or more physicians or other licensed health care professionals, you may make a decision as to which recommendation is the most authoritative, and record the case based upon that recommendation.

(ix) *How do I decide if an injury or illness involved a transfer to another job?* If you assign an injured or ill employee to a job other than his or her regular job for part of the day, the case involves transfer to another job. Note: This does not include the day on which the injury or illness occurred.

(x) *Are transfers to another job recorded in the same way as restricted work cases?* Yes, both job transfer and restricted work cases are recorded in the same box on the OSHA 300 Log. For example, if you assign, or a physician or other licensed health care professional recommends that you assign, an injured or ill worker to his or her routine job duties for part of the day and to another job for the rest of the day, the injury or illness involves a job transfer. You must record an injury or illness that involves a job transfer by placing a check in the box for job transfer.

(xi) *How do I count days of job transfer or restriction?* You count days of job transfer or restriction in the same way you count days away from work, using § 1904.7(b)(3)(i) to (viii), above. The only difference is that, if you permanently assign the injured or ill employee to a job that has been modified or permanently changed in a manner that eliminates the routine functions the employee was restricted from performing, you may stop the day count when the modification or change is made permanent. You must count at least one day of restricted work or job transfer for such cases.

(5) *How do I record an injury or illness that involves medical treatment beyond first aid?* If a work-related injury or illness results in medical treatment beyond first aid, you must record it on the OSHA 300 Log. If the injury or illness did not involve death, one or more days away from work, one or more days of restricted work, or one or more days of job transfer, you enter a check mark in the box for cases where the employee received medical treatment but remained at work and was not transferred or restricted.

(i) *What is the definition of medical treatment?* ''Medical treatment'' means the management and care of a patient to

combat disease or disorder. For the purposes of Part 1904, medical treatment does not include:

(A) Visits to a physician or other licensed health care professional solely for observation or counseling;

(B) The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (*e.g.*, eye drops to dilate pupils); or

(C) ''First aid'' as defined in paragraph (b)(5)(ii) of this section.

(ii) *What is ''first aid''?* For the purposes of Part 1904, ''first aid'' means the following:

(A) Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);

(B) Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);

(C) Cleaning, flushing or soaking wounds on the surface of the skin;

(D) Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);

(E) Using hot or cold therapy;

(F) Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);

(G) Using temporary immobilization devices while transporting an accident victim (*e.g.*, splints, slings, neck collars, back boards, etc.).

(H) Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;

(I) Using eye patches;

(J) Removing foreign bodies from the eye using only irrigation or a cotton swab;

(K) Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;

(L) Using finger guards;

(M) Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or

(N) Drinking fluids for relief of heat stress.

(iii) *Are any other procedures included in first aid?* No, this is a complete list of all treatments considered first aid for Part 1904 purposes.

(iv) *Does the professional status of the person providing the treatment have any effect on what is considered first aid or medical treatment?* No, OSHA considers the treatments listed in § 1904.7(b)(5)(ii) of this Part to be first aid regardless of the professional status of the person providing the treatment. Even when these treatments are provided by a physician or other licensed health care professional, they are considered first aid for the purposes of Part 1904. Similarly, OSHA considers treatment beyond first aid to be medical treatment even when it is provided by someone other than a physician or other licensed health care professional.

(v) *What if a physician or other licensed health care professional recommends medical treatment but the employee does not follow the recommendation?* If a physician or other licensed health care professional recommends medical treatment, you should encourage the injured or ill employee to follow that recommendation. However, you must record the case even if the injured or ill employee does not follow the physician or other licensed health care professional's recommendation.

(6) *Is every work-related injury or illness case involving a loss of consciousness recordable?* Yes, you must record a work-related injury or illness if the worker becomes unconscious, regardless of the length of time the employee remains unconscious.

(7) *What is a ''significant'' diagnosed injury or illness that is recordable under the general criteria even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness?* Work-related cases involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum must always be recorded under the general criteria at the time of diagnosis by a physician or other licensed health care professional.

Note to § 1904.7: OSHA believes that most significant injuries and illnesses will result in one of the criteria listed in § 1904.7(a): death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. However, there are some significant injuries, such as a punctured eardrum or a fractured toe or rib, for which neither medical treatment nor work restrictions may be recommended. In addition, there are some significant progressive diseases, such as byssinosis, silicosis, and some types of cancer, for which medical treatment or work restrictions may not be recommended at the time of diagnosis but are likely to be recommended as the disease progresses. OSHA believes that cancer, chronic irreversible diseases, fractured or cracked bones, and punctured eardrums are generally considered significant injuries and illnesses, and must be recorded at the initial diagnosis even if medical treatment or work restrictions are not recommended, or are postponed, in a particular case.

§ 1904.8 Recording criteria for needlestick and sharps injuries.

(a) *Basic requirement.* You must record all work-related needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by 29 CFR 1910.1030). You must enter the case on the OSHA 300 Log as an injury. To protect the employee's privacy, you may not enter the employee's name on the OSHA 300 Log (see the requirements for privacy cases in paragraphs 1904.29(b)(6) through 1904.29(b)(9)).

(b) *Implementation.* (1) *What does ''other potentially infectious material'' mean?* The term ''other potentially infectious materials'' is defined in the OSHA Bloodborne Pathogens standard at § 1910.1030(b). These materials include:

(i) Human bodily fluids, tissues and organs, and

(ii) Other materials infected with the HIV or hepatitis B (HBV) virus such as laboratory cultures or tissues from experimental animals.

(2) *Does this mean that I must record all cuts, lacerations, punctures, and scratches?* No, you need to record cuts, lacerations, punctures, and scratches only if they are work-related and involve contamination with another person's blood or other potentially infectious material. If the cut, laceration, or scratch involves a clean object, or a contaminant other than blood or other potentially infectious material, you need to record the case only if it meets one or more of the recording criteria in § 1904.7.

(3) *If I record an injury and the employee is later diagnosed with an infectious bloodborne disease, do I need to update the OSHA 300 Log?* Yes, you must update the classification of the case on the OSHA 300 Log if the case results in death, days away from work, restricted work, or job transfer. You must also update the description to identify the infectious disease and change the classification of the case from an injury to an illness.

(4) *What if one of my employees is splashed or exposed to blood or other*

potentially infectious material without being cut or scratched? Do I need to record this incident? You need to record such an incident on the OSHA 300 Log as an illness if:

(i) It results in the diagnosis of a bloodborne illness, such as HIV, hepatitis B, or hepatitis C; or

(ii) It meets one or more of the recording criteria in § 1904.7.

§ 1904.9 Recording criteria for cases involving medical removal under OSHA standards.

(a) *Basic requirement.* If an employee is medically removed under the medical surveillance requirements of an OSHA standard, you must record the case on the OSHA 300 Log.

(b) *Implementation.* (1) *How do I classify medical removal cases on the OSHA 300 Log?* You must enter each medical removal case on the OSHA 300 Log as either a case involving days away from work or a case involving restricted work activity, depending on how you decide to comply with the medical removal requirement. If the medical removal is the result of a chemical exposure, you must enter the case on the OSHA 300 Log by checking the ''poisoning'' column.

(2) *Do all of OSHA's standards have medical removal provisions?* No, some OSHA standards, such as the standards covering bloodborne pathogens and noise, do not have medical removal provisions. Many OSHA standards that cover specific chemical substances have medical removal provisions. These standards include, but are not limited to, lead, cadmium, methylene chloride, formaldehyde, and benzene.

(3) *Do I have to record a case where I voluntarily removed the employee from exposure before the medical removal criteria in an OSHA standard are met?* No, if the case involves voluntary medical removal before the medical removal levels required by an OSHA standard, you do not need to record the case on the OSHA 300 Log.

§ 1904.10 Recording criteria for cases involving occupational hearing loss.

(a) *Basic requirement.* If an employee's hearing test (audiogram) reveals that a Standard Threshold Shift (STS) has occurred, you must record the case on the OSHA 300 Log by checking the ''hearing loss'' column.

(b) *Implementation.* (1) *What is a Standard Threshold Shift?* A Standard Threshold Shift, or STS, is defined in the occupational noise exposure standard at 29 CFR 1910.95(c)(10)(i) as a change in hearing threshold, relative to the most recent audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 hertz in one or both ears.

(2) *How do I determine whether an STS has occurred?* If the employee has never previously experienced a recordable hearing loss, you must compare the employee's current audiogram with that employee's baseline audiogram. If the employee has previously experienced a recordable hearing loss, you must compare the employee's current audiogram with the employee's revised baseline audiogram (the audiogram reflecting the employee's previous recordable hearing loss case).

(3) *May I adjust the audiogram results to reflect the effects of aging on hearing?* Yes, when comparing audiogram results, you may adjust the results for the employee's age when the audiogram was taken using Tables F–1 or F–2, as appropriate, in Appendix F of 29 CFR 1910.95.

(4) *Do I have to record the hearing loss if I am going to retest the employee's hearing?* No, if you retest the employee's hearing within 30 days of the first test, and the retest does not confirm the STS, you are not required to record the hearing loss case on the OSHA 300 Log. If the retest confirms the STS, you must record the hearing loss illness within seven (7) calendar days of the retest.

(5) *Are there any special rules for determining whether a hearing loss case is work-related?* Yes, hearing loss is presumed to be work-related if the employee is exposed to noise in the workplace at an 8-hour time-weighted average of 85 dBA or greater, or to a total noise dose of 50 percent, as defined in 29 CFR 1910.95. For hearing loss cases where the employee is not exposed to this level of noise, you must use the rules in § 1904.5 to determine if the hearing loss is work-related.

(6) *If a physician or other licensed health care professional determines the hearing loss is not work-related, do I still need to record the case?* If a physician or other licensed health care professional determines that the hearing loss is not work-related or has not been significantly aggravated by occupational noise exposure, you are not required to consider the case work-related or to record the case on the OSHA 300 Log.

§ 1904.11 Recording criteria for work-related tuberculosis cases.

(a) *Basic requirement.* If any of your employees has been occupationally exposed to anyone with a known case of active tuberculosis (TB), and that employee subsequently develops a tuberculosis infection, as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional, you must record the case on the OSHA 300 Log by checking the ''respiratory condition'' column.

(b) *Implementation.* (1) *Do I have to record, on the Log, a positive TB skin test result obtained at a pre-employment physical?* No, you do not have to record it because the employee was not occupationally exposed to a known case of active tuberculosis in your workplace.

(2) *May I line-out or erase a recorded TB case if I obtain evidence that the case was not caused by occupational exposure?* Yes, you may line-out or erase the case from the Log under the following circumstances:

(i) The worker is living in a household with a person who has been diagnosed with active TB;

(ii) The Public Health Department has identified the worker as a contact of an individual with a case of active TB unrelated to the workplace; or

(iii) A medical investigation shows that the employee's infection was caused by exposure to TB away from work, or proves that the case was not related to the workplace TB exposure.

§ 1904.12 Recording criteria for cases involving work-related musculoskeletal disorders.

(a) *Basic requirement.* If any of your employees experiences a recordable work-related musculoskeletal disorder (MSD), you must record it on the OSHA 300 Log by checking the ''musculoskeletal disorder'' column.

(b) *Implementation.* (1) *What is a ''musculoskeletal disorder'' or MSD?* Musculoskeletal disorders (MSDs) are disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. MSDs do not include disorders caused by slips, trips, falls, motor vehicle accidents, or other similar accidents. Examples of MSDs include: Carpal tunnel syndrome, Rotator cuff syndrome, De Quervain's disease, Trigger finger, Tarsal tunnel syndrome, Sciatica, Epicondylitis, Tendinitis, Raynaud's phenomenon, Carpet layers knee, Herniated spinal disc, and Low back pain.

(2) *How do I decide which musculoskeletal disorders to record?* There are no special criteria for determining which musculoskeletal disorders to record. An MSD case is recorded using the same process you would use for any other injury or illness. If a musculoskeletal disorder is work-related, and is a new case, and meets one or more of the general recording criteria, you must record the musculoskeletal disorder. The following table will guide you to the appropriate

section of the rule for guidance on recording MSD cases.

(i) Determining if the MSD is work-related. See § 1904.5.

(ii) Determining if the MSD is a new case. See § 1904.6.

(iii) Determining if the MSD meets one or more of the general recording criteria:

(A) Days away from work, see § 1904.7(b)(3).

(B) Restricted work or transfer to another job, or see § 1904.7(b)(4).

(C) Medical treatment beyond first aid. See § 1904.7(b)(5).

(3) *If a work-related MSD case involves only subjective symptoms like pain or tingling, do I have to record it as a musculoskeletal disorder?* The symptoms of an MSD are treated the same as symptoms for any other injury or illness. If an employee has pain, tingling, burning, numbness or any other subjective symptom of an MSD, and the symptoms are work-related, and the case is a new case that meets the recording criteria, you must record the case on the OSHA 300 Log as a musculoskeletal disorder.

§§ 1904.13–1904.28 [Reserved]

§ 1904.29 Forms

(a) *Basic requirement.* You must use OSHA 300, 300–A, and 301 forms, or equivalent forms, for recordable injuries and illnesses. The OSHA 300 form is called the Log of Work-Related Injuries and Illnesses, the 300–A is the Summary of Work-Related Injuries and Illnesses, and the OSHA 301 form is called the Injury and Illness Incident Report.

(b) *Implementation.* (1) *What do I need to do to complete the OSHA 300 Log?* You must enter information about your business at the top of the OSHA 300 Log, enter a one or two line description for each recordable injury or illness, and summarize this information on the OSHA 300–A at the end of the year.

(2) *What do I need to do to complete the OSHA 301 Incident Report?* You must complete an OSHA 301 Incident Report form, or an equivalent form, for each recordable injury or illness entered on the OSHA 300 Log.

(3) *How quickly must each injury or illness be recorded?* You must enter each recordable injury or illness on the OSHA 300 Log and 301 Incident Report within seven (7) calendar days of receiving information that a recordable injury or illness has occurred.

(4) *What is an equivalent form?* An equivalent form is one that has the same information, is as readable and understandable, and is completed using the same instructions as the OSHA form it replaces. Many employers use an insurance form instead of the OSHA 301 Incident Report, or supplement an insurance form by adding any additional information required by OSHA.

(5) *May I keep my records on a computer?* Yes, if the computer can produce equivalent forms when they are needed, as described under §§ 1904.35 and 1904.40, you may keep your records using the computer system.

(6) *Are there situations where I do not put the employee's name on the forms for privacy reasons?* Yes, if you have a ''privacy concern case,'' you may not enter the employee's name on the OSHA 300 Log. Instead, enter ''privacy case'' in the space normally used for the employee's name. This will protect the privacy of the injured or ill employee when another employee, a former employee, or an authorized employee representative is provided access to the OSHA 300 Log under § 1904.35(b)(2). You must keep a separate, confidential list of the case numbers and employee names for your privacy concern cases so you can update the cases and provide the information to the government if asked to do so.

(7) *How do I determine if an injury or illness is a privacy concern case?* You must consider the following injuries or illnesses to be privacy concern cases:

(i) An injury or illness to an intimate body part or the reproductive system;

(ii) An injury or illness resulting from a sexual assault;

(iii) Mental illnesses;

(iv) HIV infection, hepatitis, or tuberculosis;

(v) Needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (see § 1904.8 for definitions); and

(vi) Other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log. Musculoskeletal disorders (MSDs) are not considered privacy concern cases.

(8) *May I classify any other types of injuries and illnesses as privacy concern cases?* No, this is a complete list of all injuries and illnesses considered privacy concern cases for Part 1904 purposes.

(9) *If I have removed the employee's name, but still believe that the employee may be identified from the information on the forms, is there anything else that I can do to further protect the employee's privacy?* Yes, if you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature. For example, a sexual assault case could be described as ''injury from assault,'' or an injury to a reproductive organ could be described as ''lower abdominal injury.''

(10) *What must I do to protect employee privacy if I wish to provide access to the OSHA Forms 300 and 301 to persons other than government representatives, employees, former employees or authorized representatives?* If you decide to voluntarily disclose the Forms to persons other than government representatives, employees, former employees or authorized representatives (as required by §§ 1904.35 and 1904.40), you must remove or hide the employees' names and other personally identifying information, except for the following cases. You may disclose the Forms with personally identifying information only:

(i) to an auditor or consultant hired by the employer to evaluate the safety and health program;

(ii) to the extent necessary for processing a claim for workers' compensation or other insurance benefits; or

(iii) to a public health authority or law enforcement agency for uses and disclosures for which consent, an authorization, or opportunity to agree or object is not required under Department of Health and Human Services Standards for Privacy of Individually Identifiable Health Information, 45 CFR 164.512.

Subpart D—Other OSHA Injury and Illness Recordkeeping Requirements

§ 1904.30 Multiple business establishments.

(a) *Basic requirement.* You must keep a separate OSHA 300 Log for each establishment that is expected to be in operation for one year or longer.

(b) *Implementation.* (1) *Do I need to keep OSHA injury and illness records for short-term establishments (i.e., establishments that will exist for less than a year)?* Yes, however, you do not have to keep a separate OSHA 300 Log for each such establishment. You may keep one OSHA 300 Log that covers all of your short-term establishments. You may also include the short-term establishments' recordable injuries and illnesses on an OSHA 300 Log that

covers short-term establishments for individual company divisions or geographic regions.

(2) *May I keep the records for all of my establishments at my headquarters location or at some other central location?* Yes, you may keep the records for an establishment at your headquarters or other central location if you can:

(i) Transmit information about the injuries and illnesses from the establishment to the central location within seven (7) calendar days of receiving information that a recordable injury or illness has occurred; and

(ii) Produce and send the records from the central location to the establishment within the time frames required by § 1904.35 and § 1904.40 when you are required to provide records to a government representative, employees, former employees or employee representatives.

(3) *Some of my employees work at several different locations or do not work at any of my establishments at all. How do I record cases for these employees?* You must link each of your employees with one of your establishments, for recordkeeping purposes. You must record the injury and illness on the OSHA 300 Log of the injured or ill employee's establishment, or on an OSHA 300 Log that covers that employee's short-term establishment.

(4) *How do I record an injury or illness when an employee of one of my establishments is injured or becomes ill while visiting or working at another of my establishments, or while working away from any of my establishments?* If the injury or illness occurs at one of your establishments, you must record the injury or illness on the OSHA 300 Log of the establishment at which the injury or illness occurred. If the employee is injured or becomes ill and is not at one of your establishments, you must record the case on the OSHA 300 Log at the establishment at which the employee normally works.

§ 1904.31 Covered employees.

(a) *Basic requirement.* You must record on the OSHA 300 Log the recordable injuries and illnesses of all employees on your payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers. You also must record the recordable injuries and illnesses that occur to employees who are not on your payroll if you supervise these employees on a day-to-day basis. If your business is organized as a sole proprietorship or partnership, the owner or partners are not considered employees for recordkeeping purposes.

(b) *Implementation.* (1) *If a self-employed person is injured or becomes ill while doing work at my business, do I need to record the injury or illness?* No, self-employed individuals are not covered by the OSH Act or this regulation.

(2) *If I obtain employees from a temporary help service, employee leasing service, or personnel supply service, do I have to record an injury or illness occurring to one of those employees?* You must record these injuries and illnesses if you supervise these employees on a day-to-day basis.

(3) *If an employee in my establishment is a contractor's employee, must I record an injury or illness occurring to that employee?* If the contractor's employee is under the day-to-day supervision of the contractor, the contractor is responsible for recording the injury or illness. If you supervise the contractor employee's work on a day-to-day basis, you must record the injury or illness.

(4) *Must the personnel supply service, temporary help service, employee leasing service, or contractor also record the injuries or illnesses occurring to temporary, leased or contract employees that I supervise on a day-to-day basis?* No, you and the temporary help service, employee leasing service, personnel supply service, or contractor should coordinate your efforts to make sure that each injury and illness is recorded only once: either on your OSHA 300 Log (if you provide day-to-day supervision) or on the other employer's OSHA 300 Log (if that company provides day-to-day supervision).

§ 1904.32 Annual summary.

(a) *Basic requirement.* At the end of each calendar year, you must:

(1) Review the OSHA 300 Log to verify that the entries are complete and accurate, and correct any deficiencies identified;

(2) Create an annual summary of injuries and illnesses recorded on the OSHA 300 Log;

(3) Certify the summary; and

(4) Post the annual summary.

(b) *Implementation.* (1) *How extensively do I have to review the OSHA 300 Log entries at the end of the year?* You must review the entries as extensively as necessary to make sure that they are complete and correct.

(2) *How do I complete the annual summary?* You must:

(i) Total the columns on the OSHA 300 Log (if you had no recordable cases, enter zeros for each column total); and

(ii) Enter the calendar year covered, the company's name, establishment name, establishment address, annual average number of employees covered by the OSHA 300 Log, and the total hours worked by all employees covered by the OSHA 300 Log.

(iii) If you are using an equivalent form other than the OSHA 300-A summary form, as permitted under § 1904.6(b)(4), the summary you use must also include the employee access and employer penalty statements found on the OSHA 300-A Summary form.

(3) *How do I certify the annual summary?* A company executive must certify that he or she has examined the OSHA 300 Log and that he or she reasonably believes, based on his or her knowledge of the process by which the information was recorded, that the annual summary is correct and complete.

(4) *Who is considered a company executive?* The company executive who certifies the log must be one of the following persons:

(i) An owner of the company (only if the company is a sole proprietorship or partnership);

(ii) An officer of the corporation;

(iii) The highest ranking company official working at the establishment; or

(iv) The immediate supervisor of the highest ranking company official working at the establishment.

(5) *How do I post the annual summary?* You must post a copy of the annual summary in each establishment in a conspicuous place or places where notices to employees are customarily posted. You must ensure that the posted annual summary is not altered, defaced or covered by other material.

(6) *When do I have to post the annual summary?* You must post the summary no later than February 1 of the year following the year covered by the records and keep the posting in place until April 30.

§ 1904.33 Retention and updating.

(a) *Basic requirement.* You must save the OSHA 300 Log, the privacy case list (if one exists), the annual summary, and the OSHA 301 Incident Report forms for five (5) years following the end of the calendar year that these records cover.

(b) *Implementation.* (1) *Do I have to update the OSHA 300 Log during the five-year storage period?* Yes, during the storage period, you must update your stored OSHA 300 Logs to include newly discovered recordable injuries or illnesses and to show any changes that have occurred in the classification of previously recorded injuries and illnesses. If the description or outcome of a case changes, you must remove or line out the original entry and enter the new information.

(2) *Do I have to update the annual summary?* No, you are not required to update the annual summary, but you may do so if you wish.

(3) *Do I have to update the OSHA 301 Incident Reports?* No, you are not required to update the OSHA 301 Incident Reports, but you may do so if you wish.

§ 1904.34 Change in business ownership.

If your business changes ownership, you are responsible for recording and reporting work-related injuries and illnesses only for that period of the year during which you owned the establishment. You must transfer the Part 1904 records to the new owner. The new owner must save all records of the establishment kept by the prior owner, as required by § 1904.33 of this Part, but need not update or correct the records of the prior owner.

§ 1904.35 Employee involvement.

(a) *Basic requirement.* Your employees and their representatives must be involved in the recordkeeping system in several ways.

(1) You must inform each employee of how he or she is to report an injury or illness to you.

(2) You must provide limited access to your injury and illness records for your employees and their representatives.

(b) *Implementation.* (1) *What must I do to make sure that employees report work-related injuries and illnesses to me?*

(i) You must set up a way for employees to report work-related injuries and illnesses promptly; and

(ii) You must tell each employee how to report work-related injuries and illnesses to you.

(2) *Do I have to give my employees and their representatives access to the OSHA injury and illness records?* Yes, your employees, former employees, their personal representatives, and their authorized employee representatives have the right to access the OSHA injury and illness records, with some limitations, as discussed below.

(i) *Who is an authorized employee representative?* An authorized employee representative is an authorized collective bargaining agent of employees.

(ii) *Who is a ''personal representative'' of an employee or former employee?* A personal representative is:

(A) Any person that the employee or former employee designates as such, in writing; or

(B) The legal representative of a deceased or legally incapacitated employee or former employee.

(iii) *If an employee or representative asks for access to the OSHA 300 Log, when do I have to provide it?* When an employee, former employee, personal representative, or authorized employee representative asks for copies of your current or stored OSHA 300 Log(s) for an establishment the employee or former employee has worked in, you must give the requester a copy of the relevant OSHA 300 Log(s) by the end of the next business day.

(iv) *May I remove the names of the employees or any other information from the OSHA 300 Log before I give copies to an employee, former employee, or employee representative?* No, you must leave the names on the 300 Log. However, to protect the privacy of injured and ill employees, you may not record the employee's name on the OSHA 300 Log for certain ''privacy concern cases,'' as specified in paragraphs 1904.29(b)(6) through 1904.29(b)(9).

(v) *If an employee or representative asks for access to the OSHA 301 Incident Report, when do I have to provide it?*

(A) When an employee, former employee, or personal representative asks for a copy of the OSHA 301 Incident Report describing an injury or illness to that employee or former employee, you must give the requester a copy of the OSHA 301 Incident Report containing that information by the end of the next business day.

(B) When an authorized employee representative asks for a copies of the OSHA 301 Incident Reports for an establishment where the agent represents employees under a collective bargaining agreement, you must give copies of those forms to the authorized employee representative within 7 calendar days. You are only required to give the authorized employee representative information from the OSHA 301 Incident Report section titled ''Tell us about the case.'' You must remove all other information from the copy of the OSHA 301 Incident Report or the equivalent substitute form that you give to the authorized employee representative.

(vi) *May I charge for the copies?* No, you may not charge for these copies the first time they are provided. However, if one of the designated persons asks for additional copies, you may assess a reasonable charge for retrieving and copying the records.

§ 1904.36 Prohibition against discrimination.

Section 11(c) of the Act prohibits you from discriminating against an employee for reporting a work-related fatality, injury or illness. That provision of the Act also protects the employee who files a safety and health complaint, asks for access to the Part 1904 records, or otherwise exercises any rights afforded by the OSH Act.

§ 1904.37 State recordkeeping regulations.

(a) *Basic requirement.* Some States operate their own OSHA programs, under the authority of a State Plan approved by OSHA. States operating OSHA-approved State Plans must have occupational injury and illness recording and reporting requirements that are substantially identical to the requirements in this Part (see 29 CFR 1902.3(k), 29 CFR 1952.4 and 29 CFR 1956.10(i)).

(b) *Implementation.* (1) State-Plan States must have the same requirements as Federal OSHA for determining which injuries and illnesses are recordable and how they are recorded.

(2) For other Part 1904 provisions (for example, industry exemptions, reporting of fatalities and hospitalizations, record retention, or employee involvement), State-Plan State requirements may be more stringent than or supplemental to the Federal requirements, but because of the unique nature of the national recordkeeping program, States must consult with and obtain approval of any such requirements.

(3) Although State and local government employees are not covered Federally, all State-Plan States must provide coverage, and must develop injury and illness statistics, for these workers. State Plan recording and reporting requirements for State and local government entities may differ from those for the private sector but must meet the requirements of paragraphs 1904.37(b)(1) and (b)(2).

(4) A State-Plan State may not issue a variance to a private sector employer and must recognize all variances issued by Federal OSHA.

(5) A State Plan State may only grant an injury and illness recording and reporting variance to a State or local government employer within the State after obtaining approval to grant the variance from Federal OSHA.

§ 1904.38 Variances from the recordkeeping rule.

(a) *Basic requirement.* If you wish to keep records in a different manner from the manner prescribed by the Part 1904 regulations, you may submit a variance petition to the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, Washington, DC 20210. You can obtain

a variance only if you can show that your alternative recordkeeping system:

(1) Collects the same information as this Part requires;

(2) Meets the purposes of the Act; and

(3) Does not interfere with the administration of the Act.

(b) *Implementation.* (1) *What do I need to include in my variance petition?* You must include the following items in your petition:

(i) Your name and address;

(ii) A list of the State(s) where the variance would be used;

(iii) The address(es) of the business establishment(s) involved;

(iv) A description of why you are seeking a variance;

(v) A description of the different recordkeeping procedures you propose to use;

(vi) A description of how your proposed procedures will collect the same information as would be collected by this Part and achieve the purpose of the Act; and

(vii) A statement that you have informed your employees of the petition by giving them or their authorized representative a copy of the petition and by posting a statement summarizing the petition in the same way as notices are posted under § 1903.2(a).

(2) *How will the Assistant Secretary handle my variance petition?* The Assistant Secretary will take the following steps to process your variance petition.

(i) The Assistant Secretary will offer your employees and their authorized representatives an opportunity to submit written data, views, and arguments about your variance petition.

(ii) The Assistant Secretary may allow the public to comment on your variance petition by publishing the petition in the **Federal Register**. If the petition is published, the notice will establish a public comment period and may include a schedule for a public meeting on the petition.

(iii) After reviewing your variance petition and any comments from your employees and the public, the Assistant Secretary will decide whether or not your proposed recordkeeping procedures will meet the purposes of the Act, will not otherwise interfere with the Act, and will provide the same information as the Part 1904 regulations provide. If your procedures meet these criteria, the Assistant Secretary may grant the variance subject to such conditions as he or she finds appropriate.

(iv) If the Assistant Secretary grants your variance petition, OSHA will publish a notice in the **Federal Register** to announce the variance. The notice will include the practices the variance allows you to use, any conditions that apply, and the reasons for allowing the variance.

(3) *If I apply for a variance, may I use my proposed recordkeeping procedures while the Assistant Secretary is processing the variance petition?* No, alternative recordkeeping practices are only allowed after the variance is approved. You must comply with the Part 1904 regulations while the Assistant Secretary is reviewing your variance petition.

(4) *If I have already been cited by OSHA for not following the Part 1904 regulations, will my variance petition have any effect on the citation and penalty?* No, in addition, the Assistant Secretary may elect not to review your variance petition if it includes an element for which you have been cited and the citation is still under review by a court, an Administrative Law Judge (ALJ), or the OSH Review Commission.

(5) *If I receive a variance, may the Assistant Secretary revoke the variance at a later date?* Yes, the Assistant Secretary may revoke your variance if he or she has good cause. The procedures revoking a variance will follow the same process as OSHA uses for reviewing variance petitions, as outlined in paragraph 1904.38(b)(2). Except in cases of willfulness or where necessary for public safety, the Assistant Secretary will:

(i) Notify you in writing of the facts or conduct that may warrant revocation of your variance; and

(ii) Provide you, your employees, and authorized employee representatives with an opportunity to participate in the revocation procedures.

Subpart E—Reporting Fatality, Injury and Illness Information to the Government

§ 1904.39 Reporting fatalities and multiple hospitalization incidents to OSHA.

(a) *Basic requirement.* Within eight (8) hours after the death of any employee from a work-related incident or the in-patient hospitalization of three or more employees as a result of a work-related incident, you must orally report the fatality/multiple hospitalization by telephone or in person to the Area Office of the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, that is nearest to the site of the incident. You may also use the OSHA toll-free central telephone number, 1–800–321–OSHA (1–800–321–6742).

(b) *Implementation.* (1) *If the Area Office is closed, may I report the incident by leaving a message on OSHA's answering machine, faxing the area office, or sending an e-mail?* No, if you can't talk to a person at the Area Office, you must report the fatality or multiple hospitalization incident using the 800 number.

(2) *What information do I need to give to OSHA about the incident?* You must give OSHA the following information for each fatality or multiple hospitalization incident:

(i) The establishment name;

(ii) The location of the incident;

(iii) The time of the incident;

(iv) The number of fatalities or hospitalized employees;

(v) The names of any injured employees;

(vi) Your contact person and his or her phone number; and

(vii) A brief description of the incident.

(3) *Do I have to report every fatality or multiple hospitalization incident resulting from a motor vehicle accident?* No, you do not have to report all of these incidents. If the motor vehicle accident occurs on a public street or highway, and does not occur in a construction work zone, you do not have to report the incident to OSHA. However, these injuries must be recorded on your OSHA injury and illness records, if you are required to keep such records.

(4) *Do I have to report a fatality or multiple hospitalization incident that occurs on a commercial or public transportation system?* No, you do not have to call OSHA to report a fatality or multiple hospitalization incident if it involves a commercial airplane, train, subway or bus accident. However, these injuries must be recorded on your OSHA injury and illness records, if you are required to keep such records.

(5) *Do I have to report a fatality caused by a heart attack at work?* Yes, your local OSHA Area Office director will decide whether to investigate the incident, depending on the circumstances of the heart attack.

(6) *Do I have to report a fatality or hospitalization that occurs long after the incident?* No, you must only report each fatality or multiple hospitalization incident that occurs within thirty (30) days of an incident.

(7) *What if I don't learn about an incident right away?* If you do not learn of a reportable incident at the time it occurs and the incident would otherwise be reportable under paragraphs (a) and (b) of this section, you must make the report within eight (8) hours of the time the incident is reported to you or to any of your agent(s) or employee(s).

§ 1904.40 Providing records to government representatives.

(a) *Basic requirement.* When an authorized government representative asks for the records you keep under Part 1904, you must provide copies of the records within four (4) business hours.

(b) *Implementation.* (1) *What government representatives have the right to get copies of my Part 1904 records?* The government representatives authorized to receive the records are:

(i) A representative of the Secretary of Labor conducting an inspection or investigation under the Act;

(ii) A representative of the Secretary of Health and Human Services (including the National Institute for Occupational Safety and Health—NIOSH) conducting an investigation under section 20(b) of the Act, or

(iii) A representative of a State agency responsible for administering a State plan approved under section 18 of the Act.

(2) *Do I have to produce the records within four (4) hours if my records are kept at a location in a different time zone?* OSHA will consider your response to be timely if you give the records to the government representative within four (4) business hours of the request. If you maintain the records at a location in a different time zone, you may use the business hours of the establishment at which the records are located when calculating the deadline.

§ 1904.41 Annual OSHA injury and illness survey of ten or more employers.

(a) *Basic requirement.* If you receive OSHA's annual survey form, you must fill it out and send it to OSHA or OSHA's designee, as stated on the survey form. You must report the following information for the year described on the form:

(1) the number of workers you employed;

(2) the number of hours worked by your employees; and

(3) the requested information from the records that you keep under Part 1904.

(b) *Implementation.* (1) *Does every employer have to send data to OSHA?* No, each year, OSHA sends injury and illness survey forms to employers in certain industries. In any year, some employers will receive an OSHA survey form and others will not. You do not have to send injury and illness data to OSHA unless you receive a survey form.

(2) *How quickly do I need to respond to an OSHA survey form?* You must send the survey reports to OSHA, or OSHA's designee, by mail or other means described in the survey form, within 30 calendar days, or by the date stated in the survey form, whichever is later.

(3) *Do I have to respond to an OSHA survey form if I am normally exempt from keeping OSHA injury and illness records?* Yes, even if you are exempt from keeping injury and illness records under § 1904.1 to § 1904.3, OSHA may inform you in writing that it will be collecting injury and illness information from you in the following year. If you receive such a letter, you must keep the injury and illness records required by § 1904.5 to § 1904.15 and make a survey report for the year covered by the survey.

(4) *Do I have to answer the OSHA survey form if I am located in a State-Plan State?* Yes, all employers who receive survey forms must respond to the survey, even those in State-Plan States.

(5) *Does this section affect OSHA's authority to inspect my workplace?* No, nothing in this section affects OSHA's statutory authority to investigate conditions related to occupational safety and health.

§ 1904.42 Requests from the Bureau of Labor Statistics for data.

(a) *Basic requirement.* If you receive a Survey of Occupational Injuries and Illnesses Form from the Bureau of Labor Statistics (BLS), or a BLS designee, you must promptly complete the form and return it following the instructions contained on the survey form.

(b) *Implementation.* (1) *Does every employer have to send data to the BLS?* No, each year, the BLS sends injury and illness survey forms to randomly selected employers and uses the information to create the Nation's occupational injury and illness statistics. In any year, some employers will receive a BLS survey form and others will not. You do not have to send injury and illness data to the BLS unless you receive a survey form.

(2) *If I get a survey form from the BLS, what do I have to do?* If you receive a Survey of Occupational Injuries and Illnesses Form from the Bureau of Labor Statistics (BLS), or a BLS designee, you must promptly complete the form and return it, following the instructions contained on the survey form.

(3) *Do I have to respond to a BLS survey form if I am normally exempt from keeping OSHA injury and illness records?* Yes, even if you are exempt from keeping injury and illness records under § 1904.1 to § 1904.3, the BLS may inform you in writing that it will be collecting injury and illness information from you in the coming year. If you receive such a letter, you must keep the injury and illness records required by § 1904.5 to § 1904.15 and make a survey report for the year covered by the survey.

(4) *Do I have to answer the BLS survey form if I am located in a State-Plan State?* Yes, all employers who receive a survey form must respond to the survey, even those in State-Plan States.

Subpart F—Transition From the Former Rule

§ 1904.43 Summary and posting of the 2001 data.

(a) *Basic requirement.* If you were required to keep OSHA 200 Logs in 2001, you must post a 2000 annual summary from the OSHA 200 Log of occupational injuries and illnesses for each establishment.

(b) *Implementation.* (1) *What do I have to include in the summary?*

(i) You must include a copy of the totals from the 2001 OSHA 200 Log and the following information from that form:

(A) The calendar year covered;

(B) Your company name;

(C) The name and address of the establishment; and

(D) The certification signature, title and date.

(ii) If no injuries or illnesses occurred at your establishment in 2001, you must enter zeros on the totals line and post the 2001 summary.

(2) *When am I required to summarize and post the 2001 information?*

(i) You must complete the summary by February 1, 2002; and

(ii) You must post a copy of the summary in each establishment in a conspicuous place or places where notices to employees are customarily posted. You must ensure that the summary is not altered, defaced or covered by other material.

(3) You must post the 2001 summary from February 1, 2002 to March 1, 2002.

§ 1904.44 Retention and updating of old forms.

You must save your copies of the OSHA 200 and 101 forms for five years following the year to which they relate and continue to provide access to the data as though these forms were the OSHA 300 and 301 forms. You are not required to update your old 200 and 101 forms.

§ 1904.45 OMB control numbers under the Paperwork Reduction Act

The following sections each contain a collection of information requirement which has been approved by the Office of Management and Budget under the control number listed

29 CFR citation	OMB Control No.
1904.4–35	1218–0176
1904.39–41	1218–0176
1904.42	1220–0045
1904.43–44	1218–0176

Subpart G—Definitions

§ 1904.46 Definitions

The Act. The Act means the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*). The definitions contained in section 3 of the Act (29 U.S.C. 652) and related interpretations apply to such terms when used in this Part 1904.

Establishment. An establishment is a single physical location where business is conducted or where services or industrial operations are performed. For activities where employees do not work at a single physical location, such as construction; transportation; communications, electric, gas and sanitary services; and similar operations, the establishment is represented by main or branch offices, terminals, stations, etc. that either supervise such activities or are the base from which personnel carry out these activities.

(1) *Can one business location include two or more establishments?* Normally, one business location has only one establishment. Under limited conditions, the employer may consider two or more separate businesses that share a single location to be separate establishments. An employer may divide one location into two or more establishments only when:

(i) Each of the establishments represents a distinctly separate business;

(ii) Each business is engaged in a different economic activity;

(iii) No one industry description in the Standard Industrial Classification Manual (1987) applies to the joint activities of the establishments; and

(iv) Separate reports are routinely prepared for each establishment on the number of employees, their wages and salaries, sales or receipts, and other business information. For example, if an employer operates a construction company at the same location as a lumber yard, the employer may consider each business to be a separate establishment.

(2) *Can an establishment include more than one physical location?* Yes, but only under certain conditions. An employer may combine two or more physical locations into a single establishment only when:

(i) The employer operates the locations as a single business operation under common management;

(ii) The locations are all located in close proximity to each other; and

(iii) The employer keeps one set of business records for the locations, such as records on the number of employees, their wages and salaries, sales or receipts, and other kinds of business information. For example, one manufacturing establishment might include the main plant, a warehouse a few blocks away, and an administrative services building across the street.

(3) *If an employee telecommutes from home, is his or her home considered a separate establishment?* No, for employees who telecommute from home, the employee's home is not a business establishment and a separate 300 Log is not required. Employees who telecommute must be linked to one of your establishments under § 1904.30(b)(3).

Injury or illness. An injury or illness is an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, or amputation. Illnesses include both acute and chronic illnesses, such as, but not limited to, a skin disease, respiratory disorder, or poisoning. (Note: Injuries and illnesses are recordable only if they are new, work-related cases that meet one or more of the Part 1904 recording criteria.)

Physician or Other Licensed Health Care Professional. A physician or other licensed health care professional is an individual whose legally permitted scope of practice (*i.e.*, license, registration, or certification) allows him or her to independently perform, or be delegated the responsibility to perform, the activities described by this regulation.

You. ''You'' means an employer as defined in Section 3 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 652).

PART 1952—[AMENDED]

2. The authority citation for Part 1952 is revised to read as follows:

Authority: 29 U.S.C. 667; 29 CFR part 1902, Secretary of Labor's Order No. 1–90 (55 FR 9033) and 6–96 (62 FR 111).

3. Section 1952.4 is revised to read as follows:

§ 1952.4 Injury and illness recording and reporting requirements.

(a) Injury and illness recording and reporting requirements promulgated by State-Plan States must be substantially identical to those in 29 CFR part 1904 ''Recording and Reporting Occupational Injuries and Illnesses.'' State-Plan States must promulgate recording and reporting requirements that are the same as the Federal requirements for determining which injuries and illnesses will be entered into the records and how they are entered. All other injury and illness recording and reporting requirements that are promulgated by State-Plan States may be more stringent than, or supplemental to, the Federal requirements, but, because of the unique nature of the national recordkeeping program, States must consult with OSHA and obtain approval of such additional or more stringent reporting and recording requirements to ensure that they will not interfere with uniform reporting objectives. State-Plan States must extend the scope of their regulation to State and local government employers.

(b) A State may not grant a variance to the injury and illness recording and reporting requirements for private sector employers. Such variances may only be granted by Federal OSHA to assure nationally consistent workplace injury and illness statistics. A State may only grant a variance to the injury and illness recording and reporting requirements for State or local government entities in that State after obtaining approval from Federal OSHA.

(c) A State must recognize any variance issued by Federal OSHA.

(d) A State may, but is not required, to participate in the Annual OSHA Injury/Illness Survey as authorized by 29 CFR 1904.41. A participating State may either adopt requirements identical to 1904.41 in its recording and reporting regulation as an enforceable State requirement, or may defer to the Federal regulation for enforcement. Nothing in any State plan shall affect the duties of employers to comply with 1904.41, when surveyed, as provided by section 18(c)(7) of the Act.

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