DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 178

RIN 0790–AG46

Closed, Transferred, and Transferring Ranges Containing Military Munitions

AGENCY: Department of Defense.

ACTION: Proposed rule.

SUMMARY: The Department of Defense (DoD) is proposing a rule that identifies a process for evaluating appropriate response actions on closed, transferred, and transferring military ranges. Response actions will address safety, human health, and the environment. This rule contains a five-part process that is not inconsistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and is tailored to the special risks posed by military munitions and military ranges. All closed, transferred, and transferring military ranges will be identified. A range assessment will be conducted in which a site-specific accelerated response (various options for protective measures, including monitoring) will be implemented. If these measures are not sufficient, a more detailed site-specific range evaluation will be conducted. Recurring reviews will be conducted, and an administrative close-out phase also is included.

DATES: Written comments on this proposed rule will be accepted until December 26, 1997.

ADDRESSES: Written comments (one original and two copies) should be addressed to: DoD Range Rule, P.O. Box 4137, Gaithersburg, MD 20885–4137. Comments may also be submitted electronically by sending electronic mail (''e-mail'') through the internet to: fbarrule@b-r.com. All electronic comments must be submitted as an American Standard Code for Information Interchange (ASCII) file without special characters or any form of encryption, or as a Microsoft Word file. The administrative record for this rulemaking will be kept in paper form. Accordingly, the Department of Defense will convert all documents received electronically into printed paper form as they are received and will place the paper copies in the administrative record. In addition, comments may be faxed to (800) 870–6547.

Public comments and the supporting information used for this rule will be made available for public inspection and copying at the DoD range rule administrative record located at 910 Clopper Road, Gaithersburg, MD 20878–1399. This administrative record is open from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding Federal holidays. To review the administrative record materials, the public must make an appointment by calling (301) 258–8753.

FOR FURTHER INFORMATION CONTACT: To request a copy of the Range Rule or to ask a general question, please call the toll-free DoD range rule information request line (available 24 hours a day, 7 days a week) at (888) 541–1081. The toll-free number for the hearing-impaired is (800) 870–6557. In addition, this proposed rule may be downloaded from the World Wide Web at http://www.acq.osd.mil/ens/. For specific technical questions, please contact Mr. Joseph Murphy, U.S. Army Environmental Center Range Rule Office, or Ms. Karen Heckelman, U.S. Army Environmental Center Office of Counsel, at (410) 612–7104.

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I. Legal Authority

This part is proposed under the authorities of the Defense Environmental Restoration Program (DERP), in 10 U.S.C. 2701 *et seq.*; the DoD Explosives Safety Board (DDESB), in 10 U.S.C. 172 *et seq.*; and Section 104 of CERCLA, in 42 U.S.C. 9601 *et seq.*, as delegated to the DoD by Executive Order (E.O.) 12580 (59 FR 2923, January 23, 1987).

II. Background

Section 107 of the Federal Facility Compliance Act of 1992 amended the Resource Conservation and Recovery Act (RCRA) and required the U.S. Environmental Protection Agency (EPA) to promulgate regulations identifying when conventional and chemical military munitions become hazardous waste subject to RCRA Subtitle C regulations. EPA's proposed military munitions rule (60 FR 56476, November 8, 1995) would have identified military munitions left on a closed range or a range transferred from military control as meeting the statutory definition of solid waste in RCRA Section 1004(27), potentially subject to RCRA corrective action or Section 7003 authorities. However, EPA's proposed rule also stated that if the Department of Defense, pursuant to the Department of Defense's own statutory authority, were to

promulgate a rule that addressed military munitions on closed or transferred ranges in a manner that was protective of human health and the environment and that allowed for public involvement in addressing these ranges, EPA would interpret the statutory definition of solid waste as not including military munitions left on closed or transferred ranges. The Department of Defense began development of this proposal, the ''DoD Range Rule,'' in response to EPA's proposed military munitions rule.

The final EPA military munitions rule was published on February 12, 1997 (62 FR 6622). In this final rule, EPA postponed action on whether to identify as solid waste military munitions left on closed or transferred ranges. EPA will reach its final decision on this issue based on further analyses of comments received on the military munitions rule and on the Department of Defense's final regulation governing the cleanup of munitions on closed and transferred ranges. In the final military munitions rule, EPA indicated that it is prepared to address this issue under Federal environmental laws if the Department of Defense does not promulgate the range rule or if EPA finds that the range rule does not adequately protect human health and the environment.

The Department of Defense is including transferring ranges within the scope of the range rule, even though they were not included in the scope of EPA's proposed military munitions rule, to more comprehensively address this issue. The DoD proposed rule addresses the unique explosives safety considerations associated with military munitions (including unexploded ordnance (UXO)) and the need for environmental protection, and it does so under DERP, 10 U.S.C. 172, and CERCLA authorities rather than under RCRA.

III. Summary of Proposed Rule

This proposal identifies a process for evaluating response actions on closed, transferred, and transferring military ranges. These response actions fully encompass safety, are protective of human health and the environment, and address risks based upon reasonably anticipated future land use.

Closed ranges include those ranges that are within military control but are put to a use incompatible with range activities. Transferring ranges include those ranges associated with Base Realignment and Closure (BRAC) activities and other property transfers to nonmilitary entities. Transferred ranges include those being identified in the Formerly Used Defense Site (FUDS) program.

The Department of Defense's proposed rule contains a phased process, with accelerated response (AR) options as part of an early phase. All closed, transferred, and transferring military ranges will be identified. Then a site-specific range assessment (RA), in which an AR involving various protective measures such as monitoring is implemented, will determine if the protective measures are sufficient to safeguard safety, human health, and the environment. If the protective measures in and of themselves are not sufficient at a specific military range, the range evaluation (RE) process will be initiated. The RE process includes more detailed data collection to support a site-specific safety risk assessment and a site-specific human health and ecological risk assessment. At the completion of the RA and/or RE, the Department of Defense will document its decision after input from Federal and State regulators, American Indian tribes, and the public. Recurring reviews will also be conducted. The final phase is an administrative close-out of range responses that have been completed.

In this proposed rule, the Department of Defense articulates the nature and extent of its environmental response authorities under DERP, 10 U.S.C. 172, and CERCLA. It is doing so in the form of creating a formal military range response process based on the general delegation of response authority given to the Department of Defense by Congress under DERP and by the President under CERCLA; the specific emphasis in DERP and 10 U.S.C. 172 on limiting risks posed to human health and the environment by military munitions (including UXO) and military ranges; and the unique nature of the risks posed by military munitions and military ranges, for which the Department of Defense alone has special responsibility and expertise.

IV. Section-by-Section Analysis

A. Purpose, Scope and Applicability

This proposal applies to all the DoD components, such as the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the National Guard Bureau (NGB), and the U.S. Coast Guard (USCG). It applies to military munitions on closed, transferred, and transferring military ranges previously or currently owned by, leased to, or otherwise possessed or used by the United States. These military ranges may not be under the administrative control of the Secretary of Defense (or the Secretary of War prior to 1949); however, the munitions themselves remain under the jurisdiction of the Secretary of Defense. For this reason, this proposal applies to military munitions on closed, transferred, or transferring military ranges where the range itself is under the administrative control of another Federal agency or property owner, provided that the activity that led to the munitions being on those ranges was in support of the Department of Defense's national defense or national security mission. For example, the national laboratories under the U.S. Department of Energy (DOE) conduct research, development, training, and evaluation of military munitions on behalf of the Department of Defense. Similarly, USCG conducts training activities involving the use of military munitions as part of their mission in support of the Department of Defense's national defense mission. In these cases the munitions remain under the jurisdiction of the Secretary of Defense, but the range may fall under the administrative control of the Secretary of Energy or the Secretary of Transportation. This rule uses the term ''Federal Land Manager'' to refer to Federal agencies having or clearly anticipated to receive jurisdiction, custody, or control of land affected by this proposal. The scope of this proposal is thus not inconsistent with DERP (10 U.S.C. 2701(c)), CERCLA, and EPA's military munitions rule.

In some instances, however, the United States does not own the property utilized as a military range but instead leases or leased the property, or otherwise possesses, possessed or used the property. Additionally, the land could be owned by a State entity, as when National Guard activities are conducted. For this reason, this proposal would be applied to military ranges owned by an entity other than the United States but where military activities, such as operation of a range by the NGB,[1] have occurred.

This rule does not apply to any closed, transferred, or transferring military ranges that are subject to response activities pursuant to any specific statutory authority (e.g., Title X of Pub. L. 103–139, DoD Appropriations Act, 1994, Conveyance of Kaho'olawe Island, Hawaii to the State of Hawaii,

[1] The NGB will be the Department of Defense agency responsible for evaluating and implementing response actions on closed, transferred, and transferring military ranges that are owned, leased, or otherwise possessed by a State National Guard if NGB validates that the military range is or was used for a military purpose. The DoD point of contact for military ranges owned or leased by a State National Guard will be located at the NGB.

where Congress has mandated special response actions, and a special cleanup agreement was developed between the Secretary of the Navy and the State of Hawaii) or pursuant to any agreements that were negotiated prior to the effective date of this rule and that cover military ranges. However, in either case, should any aspects of this proposed rule be useful in making a given response more efficient or cost-effective, then, upon mutual consent of the parties to the agreement, nothing in this rule would prevent the response from being so adapted for use at such a range. This rule also does not apply to ranges located outside the United States, Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Virgin Islands.

Under CERCLA Section 120(e), the DoD component must enter into an interagency agreement with the EPA Administrator ''for the expeditious completion * * * of all necessary remedial action'' at a DoD site on the National Priorities List (NPL). Where a closed, transferred, or transferring range was identified and included in the interagency agreement for an NPL site, the interagency agreement, even if negotiated prior to the effective date of this rule, will govern. If the interagency agreement provides that subsequently identified areas of concern are included automatically in the interagency agreement, then for purposes of § 178.2(b)(2), such subsequently identified areas of concern would be considered to be ''identified and included in an interagency agreement for an NPL site.'' As stipulated in the preceding paragraph, nothing would prevent the response from following this rule instead, upon mutual consent of the parties to the agreement. If the range was not ''identified and included in the interagency agreement for an NPL site,'' this rule will be utilized. In some cases, UXO investigations or response actions are underway on closed, transferred, or transferring ranges at facilities where there are unresolved issues concerning the scope of the interagency or Federal facility agreement. This proposal does not apply to ongoing UXO response actions at such facilities, unless mutually agreed to by all parties to the interagency or Federal facility agreement.

Finally, this proposal does not apply to explosives or munitions emergency responses, as defined in EPA's military munitions rule (62 FR 6622, February 12, 1997). In the final rule, EPA defines an explosives or munitions emergency as all immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. As defined by EPA, an explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions, and/or transport of those items to another location to be rendered safe, treated, or destroyed. Explosives and munitions emergency responses can occur on either public or private lands. The Department of Defense may not be the first responder to a military munitions emergency (for example, the local police or another Federal agency may be the first to arrive on the scene).

Under EPA's military munitions rule, explosives or munitions emergency response activities are exempted from most requirements under RCRA. Because explosives or munitions emergencies may or may not involve military munitions on a closed, transferred, or transferring military range, the Department of Defense has decided to exclude these activities from the scope of this rule and to conduct the activities in accordance with the provisions of EPA's military munitions rule. The fact that an area has been subject to an emergency response in the past should not, however, preclude that area from being subject to the range rule. The Department of Defense solicits comments on proposed §§ 178.1—178.3, which address the purpose, scope, and applicability of this rule.

B. Definitions

This proposal includes definitions for several terms that clarify the scope and applicability of this proposed rule. While the Department of Defense is not separately defining the nine criteria from the National Contingency Plan (NCP), the nine criteria mentioned in §§ 178.7(c) and 178.9(d) have the same meanings as the nine criteria as set out in the NCP. The Department of Defense requests comments on the following proposed definitions.

1. Military Munitions

This proposal includes a definition of military munitions in § 178.4(g). This definition is the same as the definition in EPA's final military munitions rule (62 FR 6622, February 12, 1997).

2. Military Range

This proposal includes a definition of a military range in § 178.4(h). A military range is any land mass or water body that is or was used for the conduct of training, research, development, testing, or evaluation of military munitions or explosives. A military range can be used for many purposes. Examples include missile, artillery, aerial bombing, tank, naval surface warfare, mortar, antiaircraft, grenade, small arms, demolition, and multipurpose ranges where combined arms are utilized. The definition in § 178.4(h) is the same as EPA's definition in the final military munitions rule (62 FR 6622, February 12, 1997), except that additional information is provided on activities and locations that do not meet the definition of a military range.

A classic setup of a live fire area military range consists of a central area called the ''impact area.'' The impact area varies in size depending on the type of military munitions employed. The impact area contains the targets that are fired upon and thus poses the greatest potential safety risk due to the concentration of military munitions employed (i.e., the impact area will normally contain the greatest concentration of UXO). Surrounding the impact area is a buffer zone. This area is not intentionally fired into but may include some UXO; thus military activities are not conducted in this area. Outside the buffer zone are the firing/release points from which military munitions are employed (e.g., fired, dropped, placed).

Another example of a military range includes designated land and water areas set aside for the purpose of training and conducting ''maneuvers.'' These maneuver areas are used to conduct military exercises and create an environment that simulates an area of conflict or an active war zone. During these maneuvers, training aids and military munitions simulators are used and expended. Examples are training ammunitions, artillery simulators, smoke grenades, pyrotechnics, mine simulators, and riot control agents used to simulate a chemical agent attack. Even though these training aids and simulators are used to create an environment that is safer than a war or open conflict, they may still pose an explosives safety concern. For this proposed rule, the definition of military ranges includes current and former designated maneuver areas on land and water.

Airspace and water or land areas underlying airspace used for aircraft-related training, testing, or research and development where military munitions were not used do not fall within the definition of military range solely as a result of the aircraft-related activities. Examples of airspace and underlying water or land areas that would not be considered a military range for purposes of this rule include areas used for air-to-air training, electronic scoring site ranges, military operations areas, and

military training routes (MTR). Electronic scoring site ranges provide bomber aircraft with a weapon drop score without the aircraft's actually releasing any military munitions. Military operations areas are areas that separate certain military activities (e.g., air-to-air training) from civil and military aircraft traffic under instrument flight rules. MTRs are used to conduct low-altitude navigation and tactical training in excess of 250 knots air speed below 10,000 feet mean sea level altitude. No military munitions are dropped or fired in MTRs.

A water range is another example of a military range. CERCLA and DERP address releases or threats of releases of hazardous substances, pollutants, and contaminants into the ''environment,'' which is defined in CERCLA as including navigable waters, the water of the contiguous zone, and ocean waters.[2] In general, in 33 CFR 2.05–1 to 2.05–35, the terms ''navigable waters,'' ''contiguous zone,'' and ''ocean waters'' are defined as being, respectively, the internal waters of the United States and its coastal waters out to a distance of 3 nautical miles, 12 nautical miles from the U.S. coast, and 200 nautical miles from the U.S. coast. As a result, the DoD ranges located on water courses within these three zones are likewise subject to this proposed regulation.

Over the life of a military range, the types and quantities of military munitions expended on the range vary greatly due to changes in mission and technology. An important characteristic of military ranges is that their use and/or the military munitions employed normally changes over time. As technology improves and weapons systems are replaced, new types of military munitions are developed and employed. Because of limited land availability and safety requirements, new ranges are often constructed on top of old ranges. Thus a variety of military munitions (including UXO) exist on a military range because of the different types of weapons that have been employed on a particular range during its life cycle. Changes in training needs over the years also contribute to the occurrence of several classes and types of military munitions at military ranges.

[2] CERCLA Section 101(8) defines ''environment'' as including ''(A) the navigable waters, the water of the contiguous zone, and ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act of 1976, and (B), any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.''

Historic battlefields are not covered by this proposed definition of a military range. Battlefields were used for actual combat and thus were not used for training, research, development, testing, and evaluation. The Department of Defense has transferred areas that were historic battlefields and may contain UXO from past conflicts. Even though these areas are not ''military ranges'' and are not covered by this proposal, the Department of Defense will continue to provide explosive ordnance disposal (EOD) support to civil authorities for any UXO discovered on historic battlefields.

3. Closed Range

This proposal includes a definition of a closed range in § 178.4(d). This definition was provided in EPA's proposed military munitions rule (60 FR 56476, November 8, 1995) and is consistent with the final military munitions rule (62 FR 6622, February 12, 1997). Closed ranges are ranges that have been taken out of service and either have been put to new uses that are incompatible with range activities or are not considered by the military to be potential range areas. Examples of incompatible use may include the construction of a permanent building not compatible with range operations or training, such as houses, schools, hospitals, clinics, commissaries, libraries, and other such buildings. Closed ranges remain under the control of the military. Closed ranges would include those ranges that are on Federal lands or otherwise possessed by the military, determined at the respective military department's Secretariat-level position to be closed, and where future use is incompatible with range activities. Areas that meet the definition of a closed range will be regulated under this rule.

4. Transferring Range

This proposal includes a definition of a transferring range in § 178.4(n). Under that definition, a military range that is proposed to be leased, transferred, or returned from the Department of Defense to another entity, including Federal entities, is a ''transferring range.'' To qualify as a military range ''proposed'' to be leased, transferred, or returned, within the meaning of this rule, the proposal must be concrete and specific. Further experience likely will be needed to develop and clarify this definition, particularly the requirement that a proposal be ''specific and concrete.'' DoD notes that where a Federal agency might receive jurisdiction, but the transfer is not sufficiently concrete or specific to be ''proposed'' within the meaning of the definition, the agency may sit on the project team for informational purposes only, and such participation is encouraged.

A number of military ranges are proposed for transfer outside of the military control. Transferring ranges include military ranges associated with the BRAC program, as well as any other property transactions in which military ranges are transferred to nonmilitary entities. It is important to note that, immediately prior to becoming a transferring range, a military range could be considered closed, inactive, or active. Transferring ranges remain under military control until they have been officially transferred to another party. Transfer may be by deed or lease, or by return under the terms of a withdrawal, special-use permit or authorization, right-of-way, public land order, or other instrument under which the Department of Defense used the property. An active range will not be considered to be a ''transferring range'' until the transfer is imminent. While an active or transferred range is easier to identify, classifying a military range as ''transferring'' is more complex, and is based on multiple site-specific factors. Reasonably anticipated land uses for the range property will be identified and agreed to prior to the land transfer.

In some situations, the Department of Defense may not transfer a military range or a portion of the range if during the assessment it is determined that the risks cannot be reliably managed or reduced (unless such transfer is congressionally mandated). If technology limits the range response and thus restricts the use of the land, but later improvements in technology allow for a change in the designated land use, the Department of Defense is responsible for conducting a later response, if doing so is consistent with the land transfer agreement and reasonably anticipated land uses that were originally identified. Areas that meet the definition of a transferring range will be regulated under this rule. EPA's military munitions rule does not address transferring ranges; the Department of Defense has included a definition in this proposal to more comprehensively address the issue.

5. Transferred Range

This proposal includes a definition of a transferred range in § 178.4(m). A transferred range is a military range that has been released from military control. FUDS are areas that were once controlled by the Secretary of Defense and may have portions that were used as military ranges. Transferred ranges

include those being identified in the FUDS program. These areas could have been transferred to other Federal agencies (U.S. Department of the Interior (DOI), DOE, etc.), State or local governments, or private citizens.

The transfer may have been by deed or lease, or by return under the terms of a withdrawal, special-use permit or authorization, right-of-way, public land order, or other instrument under which the Department of Defense used the property. For example, public lands may be federally owned lands under the jurisdiction of the Secretary of the Interior and administered by the Bureau of Land Management (BLM). These lands may be withdrawn (by statute, executive order, or public land order) from the operation of the public land laws and reserved for other Federal agencies' uses, including the Department of Defense. Agencies holding withdrawn public lands that they no longer need are to file with BLM a notice of intent to relinquish such lands (43 CFR 2372; 41 CFR 101–47.202–6). The BLM will then determine if the lands are suitable for return to the public domain for administration under the public land laws. If the lands are no longer suitable for return to the public domain, they will be processed as ''real property'' under the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 472), or under the property management and disposal provisions of the defense base closure laws, as applicable.

6. Inactive Range

This proposal includes a definition of an inactive range in § 178.4(f). As defined in EPA's military munitions rule (62 FR 6622, February 12, 1997), an inactive range is ''a military range that is not currently being used, but that is still under military control and is considered by the military to be a potential range area, and that has not been put to a new use incompatible with range activities.'' The Department of Defense has military range areas that have been used in the past for training, research, development, testing, or evaluating military munitions. Inactive ranges are held in reserve in case the Department of Defense has a change in mission that requires additional range areas. Some inactive ranges remain under military control to protect national security, as the activities conducted on them were classified. Therefore, inactive ranges would not be considered ''closed'' under this rule. Inactive ranges are not covered by this proposed rule or EPA's military munitions rule, but they do fall under existing environmental and DoD regulations if the source of possible contamination is other constituents, not military munitions, or if contamination from range activities is moving off the range. Active and inactive ranges will be addressed in a forthcoming DoD policy to be issued by DDESB on proper safety-based management techniques for such sites. The Department of Defense will issue guidance on when an inactive range should be classified as a closed range. Factors in this decision-making process include future testing, training, and new weapons development needs, as well as needed range rotation.

7. Active Range

This proposal includes a definition of an active range in § 178.4(b), which is the same as the definition of an active range in EPA's military munitions rule (62 FR 6622, February 12, 1997). The scope of the DoD range rule is limited to closed, transferred, and transferring ranges; a definition of active ranges is included in this proposal for the sake of clarity.

8. Unexploded Ordnance

This proposal includes a definition of UXO in § 178.4(o). This definition is the same as the definition of UXO in EPA's military munitions rule (62 FR 6622, February 12, 1997). Military munitions are designed to be safe during storage and handling operations and will not normally detonate until an item is actually employed. A military munition becomes UXO only after it has been employed and failed, in total or in part, to function properly. Due to the complex design of many military munitions and the large number of military munitions employed, some of them are almost certain to become UXO. The highly likely presence of UXO on closed, transferred, and transferring military ranges creates a safety risk.

9. Other Constituents

This proposal includes a definition of other constituents in § 178.4(j). Due to their complexity and varied functions, military munitions may contain many other constituents that may be a source of concern on military ranges.

Military munitions can be composed of propellants, explosives, and pyrotechnics (PEP); chemical agents; metal parts; and other inert components. When munitions are employed on a range, the PEP components generally are consumed, leaving behind metal parts and other inert components that may be distributed in small pieces across a large area. The risk caused by the metal parts and other inert components will depend on the types of materiel used, the susceptibility of this materiel to leaching and other transport mechanisms, the physical characteristics of the range (the climate, amount of rainfall, soil type, etc.), and the quantity of military munitions employed. These components of military munitions, if released into the environment, are included in the definition of other constituents.

A small percentage of military munitions employed on military ranges fail to function as intended, which can result in UXO remaining on the range. UXO can pose a safety hazard (as discussed in Section IV.C.1. of this preamble, Safety) and/or an environmental concern. PEP compounds in military munitions could be released to the environment when the munitions casing is damaged or deteriorated. To a lesser extent, metal or other materials could build up over time in the environment. While UXO itself is not considered an other constituent, compounds released from the UXO are included in the definition of other constituents. At significant concentrations, other constituents may present explosives safety risks.

Other constituents that may be identified on military ranges also could include fluids from vehicles used as targets or from activities that occurred prior to the area's being used as a military range (e.g., landfill, industrial operations). Other constituents that are present on a military range and that fall under other regulatory authorities may be addressed by the appropriate agency (see Section IV.F.1.b. of this preamble, Relationship to Other Laws, and Section V, Discussion of Other Major Alternatives).

10. Federal Land Manager

This proposal includes a definition of Federal land manager in § 178.4(e). DERP applies to property ''owned by, leased to, or otherwise possessed by the U.S. and under the jurisdiction of the Secretary [of Defense]'' (10 U.S.C. at 2701(c)). For simplicity, the Department of Defense has used the term ''Federal land manager'' throughout the rule to refer to a Federal agency that has received or is clearly anticipated to receive jurisdiction, custody, or control over the property. The phrase ''clearly anticipated to receive jurisdiction'' refers to situations where the transfer to the Federal agency is statutorily established; legally required; incorporated in a legislative proposal formally supported by the Administration; designated under the land reuse plan; or where the transfer to the Federal agency is otherwise recognized as being clearly anticipated,

such as where both the Federal agency and the DoD component have agreed that such transfer will take place. Where a Federal agency has been proposed to receive jurisdiction, custody, or control of a former range, but the agency is not yet a Federal land manager as defined in this rule, the agency may sit on the project team for informational purposes only.

11. American Indian Tribe

This proposal includes a definition of American Indian tribe in § 178.4(c). This term is used in the proposed DoD range rule to describe Native American tribes and Native Alaskan villages that meet specific criteria so that they can be afforded substantially the same treatment as States under this rule, and thus receive a concurrence role in the range response process. The governing body of the American Indian tribe must be federally recognized by the Department of Interior; have an appropriate tribal governing body that performs health, safety, or environmental functions; and have real property interests, as defined in § 178.4(l) of this rule, over some or all of a closed, transferred, or transferring range at which a response, including pre-response activities, is ongoing or contemplated.

12. Property Owner

This proposal includes a definition of a property owner in § 178.4(l). The term ''property owner'' as used in this proposal refers to non-Federal entities that now own property that is a closed, transferred, or transferring military range, and to Native American tribes and Native Alaskan villages that own property or land held in trust by the United States for that tribe or village or its individual members. ''Property owner'' also includes any non-Federal entity legally entitled to control access to the property, to the exclusion of the right of the legal owner to control access, if known to the responsible DoD component. This situation may exist if the person legally entitled to control access to the property is different from the current legal owner (e.g., in lease situations).

C. Summary of Challenges

Military munitions are designed to injure or kill people and/or to damage or destroy property. Thus, during any environmental response activity, the presence or suspected presence of military munitions creates unique challenges due to explosives safety concerns. Before undertaking any response action on a closed, transferred, or transferring military range, the Department of Defense must first consider the explosives safety risks inherent in locating, investigating, evaluating, and responding to military range areas where military munitions are known or suspected to be present. The explosives safety risk is equally great regardless of whether military munitions (including UXO) or other constituents are being addressed in the response action. Response personnel, even those specially trained to deal with the explosives safety hazards associated with military munitions, must not be exposed to an unreasonable explosives safety risk in order to address less compelling environmental concerns. The risk to response personnel increases as the density of military munitions, e.g., UXO, increases. Additionally, rough terrain and thick vegetation restrict visibility and mobility, thereby substantially increasing the explosives safety risks associated with response activities. Response activities are made more difficult and dangerous because technology is not yet sophisticated enough to ensure positive detection, identification, and subsequent removal of all military munitions in any given area.

1. Safety

The Department of Defense is committted to the management of safety risks associated with exposure of the public and clearance personnel to military munitions. As discussed throughout this rule, the explosives safety risks from locating and clearing unstable materials such as UXO are very high. The investigation and restoration activities associated with other constituents present similar risks, as they usually occur in areas that also contain UXO. The Department of Defense is the recognized expert in the management of these risks. Federal, State, and local regulators typically seek DoD's expertise in safely managing military munitions and other ordnance discovered at non-DoD sites. Unless the explosive risk is first eliminated or at least reduced, catastrophic injury or fatalities may result from any response activity.

Typical military munitions/UXO on military ranges may include: bombs (up to 2,000 pounds), artillery, mortar, aircraft cannon, or tank-fired projectiles (20-millimeter through 16-inch), dispensed munitions, submunitions, rockets, guided missiles, grenades, general demolition materials, bulk explosives, pyrotechnics, torpedoes, mines, small arms ammunition, and chemical munitions. Military munitions are designed to be safe during storage, handling, and transportation. The fuzes used with these items also have built-in safety features to preclude arming of the munition until actual employment (firing, placing, etc.) of the item. It is not until after the munition has been employed and failed to function (totally or in part) that it becomes UXO.

Although the fuze is the most sensitive portion of the UXO, the filler may pose an even greater danger to human health and the environment. By their nature, high-explosive fillers present risks. Explosives may deteriorate over time to form sensitive crystals that could detonate if subjected to heat, shock, or friction. Chemical munitions contain chemical agents that present additional safety risks. High-explosive fillers, deteriorated explosives, and chemical munitions are a few examples of military munitions where the filler itself requires special safety consideration, even if the fuzing mechanism is no longer capable of firing.

Fuzes are designed to initiate a train of fire or detonation in ordnance by an action such as mechanical or electronic timing, electrical or mechanical energy, impact, radar, chemical, pyrotechnic, hydrostatic pressure, etc. Once safety devices (such as safety pins, safety blocks, and arming wires) are removed, a fuze can require one or more of the following forces to fully arm: acceleration, deceleration, setback, or centrifugal force. EOD personnel cannot visually determine if a fuze is armed. Therefore a fuze must be considered armed and ready to fire if the right force is applied. For example, a clockwork mechanism fuze that has armed but failed to function contains a firing pin under spring tension which, if disturbed, could fire. Also, many military munitions pose even more serious risks because they have a secondary system that will, should the munition fail to operate as intended, detonate the munition if it is disturbed in any way.

Addressing the unique problems associated with UXO on military ranges requires that knowledgeable UXO personnel and specialized safety procedures be used. The acute hazard associated with the presence of armed and potentially deadly UXO is the primary factor that drives the sequence of investigative and remedial actions. In essence, acute safety concerns direct and determine the sequence of site activities. Once the explosives hazards are identified and addressed, further response actions may occur. In some cases, normal activities may be delayed (e.g., drilling monitoring wells in UXO areas), or additional requirements may have to be met (e.g., UXO surface

clearance, followed by downhole magnetometry at regular intervals to detect subsurface ordnance present in the area where a well is being drilled). The most acute risk is to the response personnel who come near the UXO. In some cases, the risk may be so high as to preclude a clearance action.

2. Current Technological Capabilities

a. *Military munitions/UXO detection:* Military munitions detection, which is often referred to as ordnance detection, has been undertaken since the first military munitions were found on the battlefield. The clearing of military munitions requires personnel to have the capability to safely and precisely locate these items regardless of whether they are lying on the surface, covered with heavy overgrowth, buried deeply in the soil, or located underwater and potentially buried in the sediments.

Several recent tests and evaluations have identified shortfalls in UXO detection technology. Detection technologies can be hampered by the depth of penetration of the munition. The penetration depth is dependent on the munition's velocity upon impact, size, weight, shape, angle of entry, and the type and composition of soil. Obvious physical signs made by military munitions, such as entry holes, are quickly erased by natural weather processes or are often destroyed by other impacting ordnance. The growth of grass and brush compound the problem by covering munitions lying on the surface. Since many of the ranges covered by this proposed rule have not been active for many years, vegetation often hinders the ability to detect the munitions. Methods to address the problems of dense vegetation, such as deforestation and controlled burns, can cause other environmental problems. Underwater items often are buried by silt or covered with marine growth. In addition, military munitions on water ranges can be greatly affected by coastal storms and tidal actions that can immerse the military munitions in a bed of sediments or uncover military munitions that were previously embedded in sediments. Furthermore, the depth or condition of a water range may make analysis, much less retrieval, effectively impossible, or may pose an unreasonable risk to the health and safety of range response personnel.

In summary, items that affect UXO detection include: munition size, composition, depth, and orientation; soil composition and geology; vegetation and terrain; and background interference from metal scrap. Strides will have to be taken to eliminate the high degree of uncertainty associated with UXO detection. Safe clearance operations require technologies that can detect and determine the precise location of a broad spectrum of military munitions in a wide variety of soil and surface conditions, both on land and under water. Safe clearance operations also require the capability to internally examine items to identify hazardous contents, including fuzing as well as filler material.

Detection and location of military munitions depend primarily on the ability to distinguish their physical characteristics from those of the surrounding environment. Characteristics that have the most impact on the effectiveness of current detection and removal technologies include the materials used in the ordnance case, fuzing, and filler. The majority of casings are constructed of ferrous (i.e., iron-containing) metal. Nonferrous metals and plastics, however, are used for some submunitions and land mines. Nonferrous military munitions make detection much more difficult and subsequent clearance more dangerous. Fuzing systems include combinations of ferrous and nonferrous metals, plastics, electrical circuits, and small amounts of explosive materials. Filler materials include a variety of high explosives, chemical agents, pyrotechnics, and inert items such as concrete and sand.

Common methods used to detect military munitions include visual searches, magnetometers, electromagnetic induction (metal detectors), and ground-penetrating radar (GPR). A visual search for military munitions is restricted to the surface and often is hindered by vegetation and terrain. Magnetometers are the most commonly used form of detecting military munitions below the surface and can be adapted for underwater use. Low-sensitivity magnetometers have a limited depth of detection capability, while high-sensitivity magnetometers have a large number of false detections. Magnetometers can only detect munitions that contain ferrous metal. Metal detectors can locate both ferrous and nonferrous metallic objects and can be adapted for use under water; however, metal detectors can only detect munitions that are located very near the surface. GPR can collect rough images of buried metallic and nonmetallic munitions, but its effectiveness is severely limited in certain soil conditions. In general, the material used in the construction of military munitions, the munition's size and depth, and the soil's composition all affect the effectiveness of available technology.

(1) Advanced technology demonstrations. Congress authorized and appropriated funding in fiscal years 1993 to 1995 to conduct unexploded munition technology demonstrations. In response, the U.S. Army Environmental Center established the UXO Advanced Technology Demonstration (ATD) Program with technical support from the U.S. Naval EOD Technology Division. The objective of this program was to evaluate and identify innovative, cost-effective, commercially available systems for the detection, identification, and removal of UXO. These demonstrations have established a technology baseline for UXO detection and removal. In addition, the ATDs have progressively monitored state-of-the-art UXO technology advancements.

There are four separate and distinct projects associated with the multiyear Congressional funding:

(1) Jefferson Proving Ground (JPG) Phase I ATD, conducted during summer 1994.

(2) JPG Phase II ATD, conducted during summer 1995.

(3) Live Site ATDs, conducted during summer 1995.

(4) JPG Phase III ATD, conducted during summer and fall 1996.

The JPG Phases I through III ATDs were conducted at a controlled test site, which contained numerous types of inert ordnance precisely located at various depths and orientations. The Live Site ATDs were conducted at five sites across the United States that contained live ordnance. Commercial companies were invited to demonstrate their system's ability to detect, characterize, or remotely excavate UXO.

To date, more than 60 technologies have been demonstrated and evaluated as part of the ATD program. The demonstrators represented airborne, ground vehicle, and man-portable platforms; magnetometer, GPR, electromagnetic induction, and infrared sensors; target processing software; and excavation technologies.

To date, technology performance ATD results have shown systems exhibiting ordnance detection capabilities ranging from 0–85%. JPG Phase III results, although not yet published and released, once again indicate increased detection performance. While commercial technology has exhibited less than desirable capabilities (especially evidenced during JPG Phase I), private industry has made strides to identify technology performance weak points. Phases II and III show evidence of increased private industry teaming efforts, commercial research and development efforts, and clearer understanding of government needs.

Combined, this translates into enhanced systems and capabilities. However, throughout all ATDs, UXO detection technology continues to exhibit extremely high false alarm rates and minimal or no discrimination ability. Systems are unable to determine if a detected anomaly is ordnance or a piece of scrap metal. For example, if 100 ordnance items are located on a range scheduled for remediation, a technology may be able to detect 85 of the 100 UXO items. However, the demonstrator would also falsely identify over 200 other locations. For excavation purposes, this translates into many empty holes and unnecessary excavation.

(2) *Other assessments of UXO technology.* The Army Corps of Engineers recently evaluated UXO detection technology applications at 33 specific sites. The Army Corps of Engineers stated that, in general:

> [T]hree [main types of UXO sensor] technologies [(magnetometry, infrared, and ground-penetrating radar)] for the detection and location of [UXO] tend to dominate. While other evolving technology is promising, there is considerable development yet remaining. The most important observation, however, is that there is no single technology that can accomplish this task unambiguously. For all their merits, neither magnetometers, GPR, nor [metal detectors] alone can assure more than a modicum of success probability. While each is a powerful technology with distinct advantages, none has the breadth of capability to interpret all of the phenomena that are typically encountered in the search for [UXO]. This includes the capability to discriminate [UXO] from background artifacts, the ability to resolve individual entities below-ground, and the ability to determine depth below the surface independent of geology.[3]

Of the 28 systems the Army Corps of Engineers evaluated, only 5 were rated above average. Four were rated as average, while 19 were rated as below average. The Army Corps of Engineers concluded that ''the vast diversity of ordnance * * * coupled with the very nature of its designed use * * * renders the detection and location of [UXO] a very difficult task.''

Additionally, the DoD Inspector General has reviewed UXO detection technologies and stated that ''the technology currently employed to detect and remove ordnance is primitive and labor intensive.''[4] In a 1994 report, the DoD Inspector General stated:

> To date, there has been limited success in identifying UXO on or near the cleared surface. Detecting and identifying UXO underground present a much greater challenge * * *. We found that relatively primitive detection and ''pick and shovel'' removal methods are typically used for ordnance and explosive waste cleanup. The basic approach is to remove as much vegetation as possible, mark off grids, then use crews with hand held magnetometers to ''sweep'' the area. The magnetometers will detect any metal to a maximum depth of approximately three feet. When a metal object is detected, it is exposed by careful hand excavation. Most of the objects identified through that procedure are simply non-explosive scrap metal. However, when UXO is found, it is either destroyed in place or removed to a safe location for destruction. Those procedures are usually labor intensive and thus very expensive. The dangerous nature of the work requires the use of highly trained Explosive Ordnance Disposal personnel.[5]

The Inspector General concluded that UXO cleanup operations were ''relatively simplistic, labor intensive, sometimes environmentally disruptive, and expensive.''[6] Thus, despite the efforts placed on developing effective detection technology, UXO detection technology cannot currently support a totally efficient response effort.

b. *Clearance technology and activities:* In earlier years, military munitions generally were detonated in place. Even now, detonation in place is a primary response when moving a munition presents a safety risk. Section IV.C.1 of this preamble, Safety, describes some of the basic elements that affect the explosives safety risk of UXO. To accomplish range clearance, a series of complex detection and location tasks must be undertaken, such as locating surface and subsurface objects, distinguishing if the object is or may be a munitions item, and identifying the type of device and the type of filler used. Once located, there are two types of clearance methods available: point recovery and area recovery. Point recovery relies heavily on technologies to locate possible ordnance items and uses current construction, mining, and drilling technologies to unearth the detected objects. Area recovery is the removal and sifting of all soil to a certain depth, utilizing heavy equipment to remove ordnance items and debris.

The safe excavation of buried military munitions requires the removal of large quantities of soil. As the clearance depth increases, fewer military munitions are found, but the items that are found typically contain large amounts of explosives. The precise location of the buried items becomes more difficult, so their recovery often becomes a major excavation effort. Both methods are labor intensive, time-consuming, and expensive. They also present a high risk of injury or death to clearance personnel due to the larger amounts of explosives in the buried munitions. Results from the demonstration at JPG showed that robotic excavation of located UXO is feasible. Robotic responses are time-consuming, however, and could have a significant adverse impact on the speed of response operations if a large quantity of UXO requires excavation.

c. *Other constituents:* This rule addresses military munitions and other constituents on a military range. The Department of Defense recognizes that other constituents include materials that are uniquely military in nature. EPA has not established a scientific environmental baseline relative to fate, transport, and toxicological impact of these materials, or the degradation products on the environment. Although some scientific data have been collected on some of these materials on a site-specific basis, these data cannot be directly extrapolated to a national risk analysis profile. The Department of Defense will need to gain a better understanding of the adverse environmental impact, if any, of these uniquely military materials through ongoing research and development. In order to ensure the most effective response to other constituents that are uniquely military materials on ranges, the Department of Defense will prepare and implement an overall technology research and development plan based on information needed to complete the range hazards analysis and range response prioritization.

3. Technology Development

The Department of Defense recognizes the potential negative environmental impacts presented by UXO and is committed to reducing the quantity of UXO generated to the greatest extent possible. This commitment is evidenced across the life-cycle management of military munitions. The UXO reduction effort begins during the design phase of

[3] U.S. Army Corps of Engineers, ''Sensor Technology Assessment for Ordnance and Explosive Waste Detection and Location,'' page 134 (March 1, 1995).

[4] The Department of Defense, Inspector General, Memorandum for Deputy Under Secretary of Defense (Environment Security), ''Review of Policies and Procedures Guiding the Cleanup of Ordnance on Department of Defense Lands,'' page 35 (November 22, 1994).

[5] The Department of Defense, Inspector General, Memorandum for Deputy Under Secretary of Defense (Environment Security), ''Review of Policies and Procedures Guiding the Cleanup of Ordnance on Department of Defense Lands,'' page 35 (November 22, 1994).

[6] The Department of Defense, Inspector General, Memorandum for Deputy Under Secretary of Defense (Environment Security), ''Review of Policies and Procedures Guiding the Cleanup of Ordnance on Department of Defense Lands,'' page 42 (November 22, 1994).

new munitions, where attempts to produce ''green munitions'' by eliminating toxic components are underway. Significant research and development efforts are also underway to find environmentally acceptable ways to dispose of or destroy munitions at the end of their life cycle. For example, the Department of Defense now is fielding a UXO tracking system based on geo-prepositioning technology. This tracking system is designed to provide range managers with the location, type, and quantity of UXO and will assist them in reducing or eliminating unidentified UXO during routine range sweep operations. Finally, fully recognizing the limits of current technology to reliably find subsurface UXO, the Department of Defense is committing resources to develop, in concert with the private sector, new and emergent technologies that will improve the ability to locate and eliminate UXO. Therefore, the Department of Defense sees a pressing need for additional research in these areas. This is particularly true when safety considerations prevent entering the range to conduct site-specific investigations of other constituents or when the available methods to address UXO, such as a large-scale excavation, are known to have serious environmental impacts.

While detecting, approaching, detonating, and even in some cases excavating and moving UXO is possible, the process for assessing ranges and for evaluating alternatives for site-specific responses provides only limited opportunity for technological advancement. Due to the current need for advancement in these areas, both here in the United States and throughout the world, the Department of Defense believes that there must be a commitment to conducting research and technology development in these areas separate from the actions being taken at specific ranges. Since fiscal year 1993, Congress authorized and appropriated $25 million for a DoD program at JPG to identify and demonstrate the ''state-of-the-art'' in UXO detection and remediation technologies. The JPG program did establish what state-of-the-art detection technology existed and highlighted areas in need of future development. Congress has authorized and appropriated an additional $5 million (beginning in fiscal year 1997) to continue the ATD Program, JPG Phase IV.

Opportunities to evaluate and implement new technologies can occur anywhere from range assessments to recurring reviews. The Department of Defense is soliciting recommendations on means to integrate research and technology development into the range response program as outlined in this proposal.

Realizing that the only true way to eliminate UXO is to reduce the use of live munitions, the Department of Defense is focusing additional efforts on greater use of simulators, practice munitions, or less-than-lethal technology to reduce the quantity of UXO being introduced on active ranges. It is a fact, however, that to prepare for war, the nation's servicemen and women must train with live munitions. The Department of Defense has therefore committed to minimizing to the greatest degree possible the introduction of UXO into the environment through aggressive range management practices.

4. Magnitude

Military munitions have been expended in the United States since pre-Revolutionary War times. Employment of military munitions has always led to some percentage of the munitions not functioning as intended, resulting in the presence of UXO. Through the end of the 1800s, the bulk of military munitions was expended in the United States during armed conflicts. Although no battles other than in Hawaii, Alaska, Guam, and several other territories have been fought on U.S. soil in the 20th century, military training and weapons development to deter and prepare for armed conflicts have resulted in the presence of military munitions at ranges throughout the country. During both World Wars, extensive defenses were established along the Atlantic and Pacific coasts. Many of the military installations established to train and support U.S. armed forces during World War II continued to use military ranges throughout the Cold war era. As the extent of the U.S. military force's structure varied throughout the 20th century, military installations have expanded or decreased operations, and some have ceased operating entirely.

a. *Transferred ranges:* Many transferred ranges are a subset of FUDS, but not all of them qualify for the FUDS program. The FUDS program has identified approximately 8,000 former DoD properties. Of these, fewer than 1,000 have the potential to be classified as transferred ranges. The largest amount of acreage affected resides on the 169 sites identified on DOI-controlled lands. The current estimate is that more than 7 million acres of DOI property potentially contain military munitions. A large number of these DOI sites are suspected of having been used as military ranges during the World War II era. The Department of Defense may identify transferred ranges through archive searches, aerial photography, interviews with past employees, and other available sources of documentation.

b. *Transferring ranges:* Transferring ranges are frequently the result of closure decisions under BRAC. The Department of Defense also leases properties from other parties for use as military ranges. When a decision is made to terminate a lease, the affected range will be classified as a transferring range. In addition, the Department of Defense can excess property that may contain military ranges. However, the Department of Defense has established policies over the past decade to prevent the release from DoD control of additional properties containing military munitions that may pose risks to the public.

c. *Closed ranges:* Closed ranges are located on active military or National Guard installations. Military ranges on active military installations can be divided into three categories: active ranges that are currently being used to train or test military munitions; inactive ranges that are being kept in the range inventory in case conflict would break out requiring an increased level of training in the future; and closed ranges that are no longer needed for training or testing by the military and have been converted to an incompatible use. The Department of Defense began to keep records of inactive and active ranges in the mid-1970s. The Department of Defense recognizes the need to identify and maintain an inventory of closed ranges. The Department of Defense may identify closed ranges through archive searches, aerial photography, interviews with past employees, and other available sources of documentation.

D. Overview of the Range Response Process

1. Introduction

Addressing the unique problems associated with military munitions and other constituents on military ranges demands an approach that modifies the one taken under the CERCLA response and RCRA corrective action programs. The most significant reason for this difference is the absolute need to minimize explosives safety risks in planning, conducting, and implementing response actions. This is because the acute hazards associated with military munitions (especially UXO) are the primary factor driving the scope, sequence, and types of actions that are possible on the range. These concerns are unique to military ranges

in that most actions on CERCLA response or RCRA corrective action sites do not need to consider an explosion hazard posed by the presence of a munition or explosive. For example, installation of a monitoring well at most CERCLA sites does not require surveying the access route for buried military munitions or conducting a magnetometer survey as the well is drilled. Another example where range responses require a different approach is in balancing the risks and impacts of addressing the military munitions and/or UXO and other constituents against the risks involved in not taking an action. Minimizing explosives safety risks while achieving the proper balance between these competing concerns is the goal of the program described in this proposal.

The requirements of 10 U.S.C. 172, DERP, and CERCLA to respond to environmental risks at ranges provide a basis for the Department of Defense to develop a response program that addresses the same factors as are applied at CERCLA response or RCRA corrective action sites where military munitions or UXO are not present, but with a different and overarching emphasis: to protect not only the public and environment in general but the response personnel as well. In developing this proposal, the Department of Defense sought to be as consistent as possible with the overall process used in CERCLA response and RCRA corrective action programs. In taking this approach to developing this proposed rule, the Department of Defense drew not only on its experience and expertise with respect to ranges but also on its own experience with site investigation and response under CERCLA response and RCRA corrective action. Further, the Department of Defense drew on the experience of other Federal agencies. One very important source was EPA's own reviews of, and recommendations for improving, the CERCLA response and RCRA corrective action programs.

In developing the response process for military ranges described in this proposal, the Department of Defense established the following basic parameters. First, the process must minimize explosives safety risks; protect human health and the environment; and directly include the public, American Indian tribes, and appropriate Federal and State agencies by seeking their active participation throughout the process. Second, the process should focus on informed risk management decision-making and risk management actions rather than protracted study. Third, the process should, where possible, draw on the lessons learned in the CERCLA response and RCRA corrective action programs, and incorporate into its basic approach the recommended changes to improving those programs.

The Department of Defense is developing, in consultation with other Federal agencies, a conceptual time frame to establish timeline goals for beginning the first two phases of the range response process. The Department of Defense expects this conceptual time frame to be included in the final rule. See also § 178.6(a). Conceptual time frames for the later three phases will be made publicly available when developed.

2. Program Overview

The process for addressing military ranges has five basic phases. These are: (1) Range identification, (2) Range assessment/accelerated response (RA/AR), (3) RE/site-specific response, (4) Recurring review, and (5) Ending the range response action. A graphical portrayal of the process appears in figure 1, DoD Range Rule Process Overview. The demarcations between the phases are mostly for discussion purposes and are not distinct starting and stopping points. A military range addressed through this process can fall into more than one phase at any given time, depending on site-specific considerations.

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FIGURE 1 (PAGE 1 OF 2)

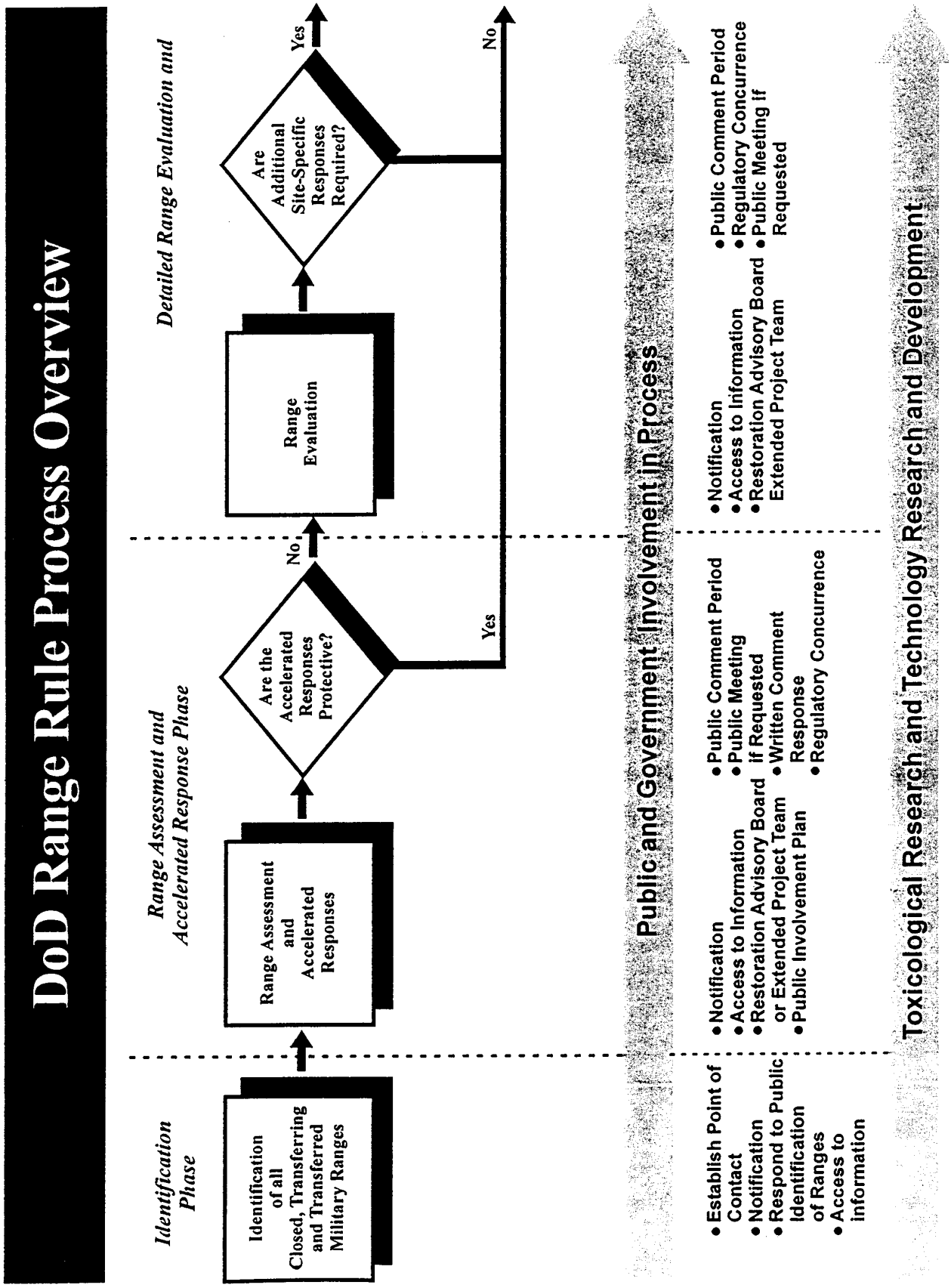
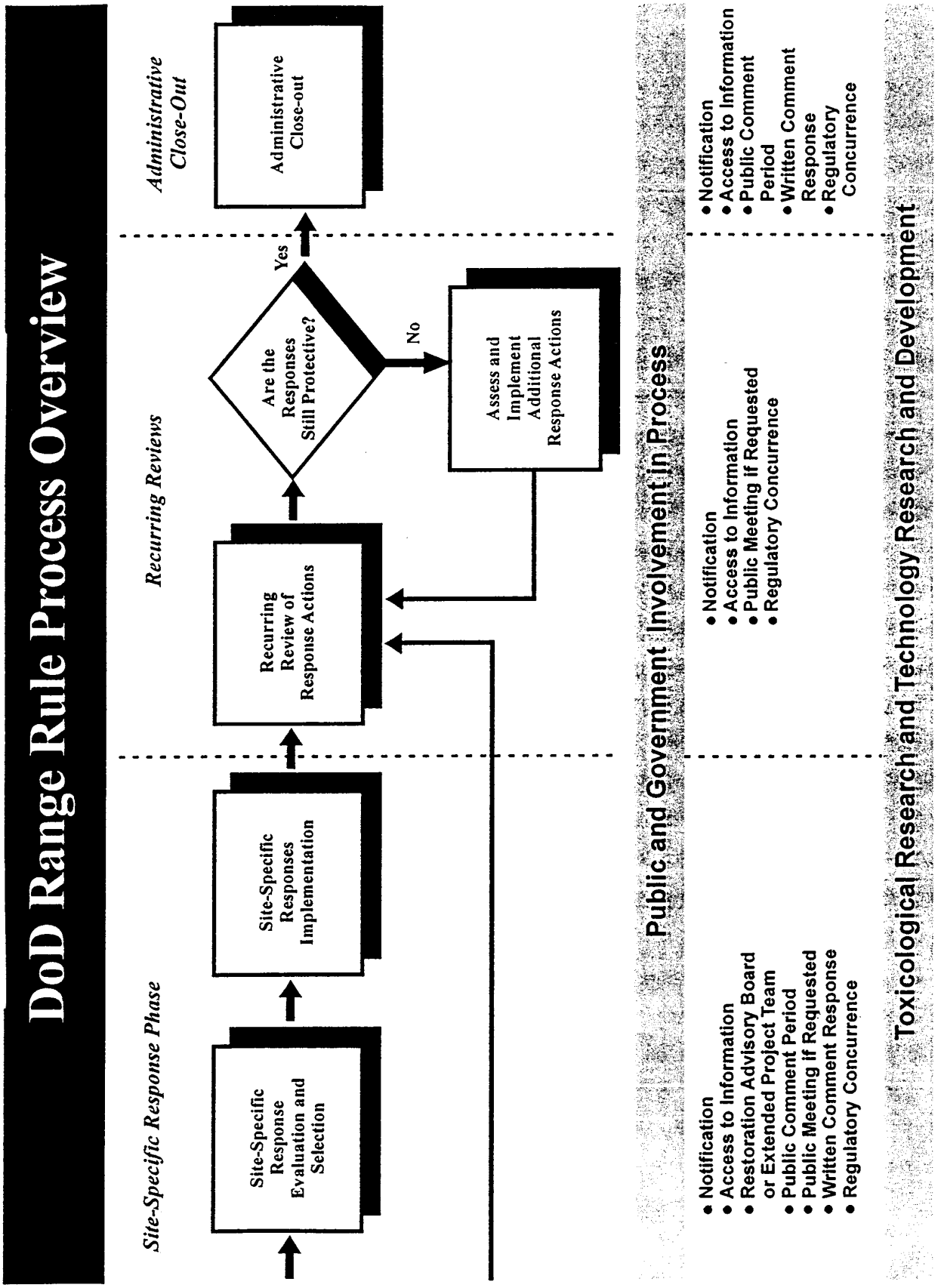


FIGURE 1 (PAGE 2 OF 2)



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The process for conducting response actions at military ranges integrates site assessment functions into a process that allows for an informed decision on how to best manage the risks posed by military munitions and other constituents at the range. Furthermore, the range response process as outlined in this proposal relies heavily on taking prompt action to address risks. One of the principal ways the range response process will achieve this is through implementation of ARs. ARs use readily available means to address the identified risks posed by UXO or other constituents (e.g., access controls, techniques to reduce the migration potential of other constituents), while continuing the assessment of the range to determine the need for subsequent actions, such as detailed studies or implementation of more complex solutions. Under this process, the decision whether to carry out an AR occurs as soon as there is enough information showing that conditions warrant such action. Further assessment of range conditions would focus on gathering additional data to assess the effectiveness of the AR, as well as on identifying other problems. Any further assessment must support decisions on how to address the identified risks remaining at the site. Should site conditions suggest a need for additional studies or responses, these can take place either through continuation of the RA/AR phase or, if these studies or actions require long periods to conduct or implement, by proceeding to the RE/site-specific response evaluation (SSRE) phase.

As can be seen from the overview flowchart in figure 1, the Department of Defense is providing the public, American Indian tribes, and regulatory agencies opportunities for involvement or access to information at every step of the process. The Department of Defense sees early and frequent interaction with the public and government agencies (including American Indian tribal governments) as essential to the success of this process, as it not only enhances risk management decisionmaking but also helps prevent disputes over the actions taken. Emphasis is placed on public, regulatory agency, and American Indian tribal involvement throughout the process.

3. Programmatic Concepts

a. *Public and government agency involvement:* In this proposal, the Department of Defense has committed to involving the public and government agencies throughout the range response process. The process provides for this involvement through widely accepted mechanisms such as public notice and comment periods, public meetings, and public availability of information. It also expands on these basic mechanisms through making information on each range as readily accessible to the public and government agencies as is practical, and by offering opportunities for public, government agency, and American Indian tribal interaction directly with the project team conducting the response. Where public interest is sufficient, the public will be involved through implementation of a public involvement plan (PIP) that is not inconsistent with CERCLA.

There are several mechanisms that the Department of Defense intends to use to involve the public, Federal and State regulators, American Indian tribes, and other Federal agencies in the range response process. These mechanisms are not inconsistent with the public participation requirements under the CERCLA program and, as with CERCLA, occur at various points in the process. In general, these requirements (described in greater detail later in this proposed rule) seek to: (1) Make information on response activities publicly available; (2) keep the public and appropriate Federal, State, and local agencies and American Indian tribes aware of planned and completed actions; (3) solicit written comments from the public and government agencies on proposed actions, and provide a responsiveness summary for public comments before the final decision to proceed; and (4) provide an opportunity for concurrence by the appropriate Federal and/or State environmental regulatory agencies, American Indian tribe, and Federal land manager. The responsible DoD component will also be responsible for operating an information repository where the public will have access to releasable documents. An administrative record for all actions will be included in the information repository.

As part of its effort to provide for meaningful regulator and public participation in the site-specific range response process, the Department of Defense will provide a technology education program to assist regulators, American Indian tribes, and the public in obtaining a layperson's understanding of the complex subject of UXO detection and removal technology. The objective of the program is not to make the participants experts in the science of UXO detection and removal technologies, but rather to increase their general knowledge. At the RA/AR phase, the responsible DoD component will provide an explanation of available UXO detection and remediation technologies to the Restoration Advisory Board (RAB) or Extended Project Team (EPT). This program will consist of a focused presentation (2 to 8 hours in duration) on current UXO detection and removal technologies and, if necessary, technology update presentations (2 to 4 hours in duration) to capture significant technology advancements that have been made since the initial presentation. The program's objective will be to increase the participants' general understanding of the science, its capabilities and its limitations.

In addition to these means for involving the public and government agencies, the Department of Defense also is examining other mechanisms for making information readily accessible. First, as part of the identification phase of the range response process, the Department of Defense will identify an official point of contact (POC) for each range addressed under these provisions. Whenever there is an inquiry by the public, a tribe, or a Federal, State, or local agency, the POC will be responsible for providing any relevant and releasable information, or for providing a formal written response explaining in detail why that information was not provided.

Second, the Department of Defense plans that the information contained in the range inventory and tracking system to be established under the provisions of proposed § 178.6(a)(1) will be readily accessible to the public, possibly including via the internet. The Department of Defense is also examining the practicality of making information about specific ranges (e.g., reports, updates, decision documents) available through this same venue. In the final rule, the Department of Defense will specifically address the types of information that will be available through the internet and how to obtain it.

Third, as part of the identification phase, the Department of Defense proposes that it will submit for inclusion in the permanent land record at the local jurisdiction level for a parcel of land identified as a closed, transferred, or transferring range, a formal notice addressing: (1) The identification of the parcel of land as a known or possible military range, including the unique identifier and common name assigned to that range; (2) a statement that the land may have been a military range; (3) a statement about the potential hazards associated with military ranges; (4) the DoD component to contact for additional information. As the range progresses through the range response process, the

Department of Defense will append summaries of information contained in formal decision documents to this notice.

Where RABs exist or can be established, they will be utilized to involve the regulators, American Indian tribes, and the public in this rule's proposed process. If a RAB does not exist and sufficient interest to establish a RAB is not obtainable, a mechanism the Department of Defense is considering to involve the public and government agencies is the use of EPTs. When a RAB cannot be established, the Department of Defense will identify interested members of the community from the RAB solicitation process and seek support for the establishment of an EPT. An EPT is a highly focused subcommittee similar to a RAB.[7] While most RABs address installation-wide remedial activities, an EPT is intended to involve the public and other agencies at the individual military ranges where response actions are planned and implemented. A primary objective of the EPT is to develop a common understanding of the scope and proposed approach to the upcoming range response activities. Under this concept, the EPT consists of the DoD staff and contractors responsible for planning, conducting, and implementing response actions at a specific range (i.e., the internal project team)[8]; specific representatives of the public (where a RAB exists, EPT representatives would be nominated from the RAB; where a RAB does not exist, EPT representatives would be nominated from interested members of the community); specific personnel from Federal and State regulatory agencies (e.g., environmental regulatory personnel, as identified by their respective agency); and American Indian tribes and others with direct technical expertise or a significant interest in the results of the action.

EPT meetings should provide opportunities to: (1) Communicate the initial understanding of the range and the project team's initial approach for planning and conducting a response; (2) identify issues of concern; and (3) solicit viewpoints. The success of an EPT depends largely on the commitment of all the parties to consistent and continued involvement. With such a commitment, the EPT becomes the primary forum for presentation and discussion of identified problems, recommended solutions, and unresolved concerns to the public and the other Federal or State agencies. Through this exchange, the Department of Defense can address public, government agency, and tribal concerns as the response process proceeds, rather than at its conclusion. The Department of Defense believes that the use of EPTs not only will foster mutual exchange of ideas, concerns, and technical information at the working level, but also will allow DoD decision-makers the opportunity to redirect planned response actions as necessary before committing to a course of action. The Department of Defense will also consider other forums for public involvement as the specifics of the site and the interest of the community dictate. The EPT will be conducted in a manner that is consistent with the final published rule on RABs, which was proposed on August 6, 1996 (61 FR 40764–40772) and is planned to be published in calendar year 1997.

In § 178.14 of this proposed rule, a concurrence role is included for Federal and/or State environmental regulatory agencies, American Indian tribes, and Federal land managers when a response will be conducted on a closed, transferred, or transferring range under their jurisdiction, custody, or control. The concurrence role specifically applies to Federal and/or State environmental regulators, American Indian tribes, and Federal land managers, as appropriate. Regulatory agencies are given a concurrence role because other regulatory authorities may apply to a military range. Federal land managers are given a concurrence role due to the independent statutory authorities they have pertaining to lands under their jurisdiction, custody, or control. American Indian tribes are a given a concurrence role in order to provide them with substantially the same role as States. Specifically, the Department of Defense will seek review of and concurrence on the draft decision document identified in § 178.14(d) in this proposed rule. In addition, the Department of Defense will seek concurrence on the RA work plans identified under § 178.7(b)(2). Technical impracticability (TI) and no further action determinations, as well as requests for applicable or relevant and appropriate requirements (ARAR) waivers, will be contained in the draft decision document appropriate to the specific response phase underway, and thus will be provided for review and concurrence. Procedures for ARs described in § 178.7(e)(4) are not inconsistent with time-critical removals taken under CERCLA, and the Department of Defense intends to apply the same administrative procedures as those that are applicable to CERCLA time-critical removals. However, the Department of Defense does not intend to ask for concurrence on these AR decision documents, but does intend to make them available for comment.

Section 178.14 provides for document review times of 45 days. This will allow the response process to progress more rapidly. Additionally, § 178.14 of this rule encourages the use of site-specific or area-wide agreements between the Department of Defense and Federal or State environmental agencies, the Department of Defense and American Indian tribes, or the Department of Defense and Federal land managers. These agreements may modify, upon mutual agreement of the parties, the review times and dispute resolution procedures, as well as cover other pertinent issues. If nonconcurrence is received, then dispute resolution will be invoked. If no written response is received by the responsible DoD component within the established review period (including extension, if applicable), then the responsible DoD component may proceed with a range response action or invoke the dispute resolution process, or both.

The Department of Defense requests comment on the general mechanisms described for involving the public and government agencies and seeks specific comments on establishing EPTs. The Department of Defense requests that commentors provide specific recommendations on mechanisms to identify public and government agencies that might be interested in

[7] DERP, at 10 U.S.C.2705(d), states that the Department of Defense may permit the establishment of a restoration advisory board in connection with an installation (or group of installations) where [the Department of Defense] is planning or implementing environmental restoration activities.'' Since this proposed rule establishes a formal process for planning and implementing response actions at military ranges, creation of EPTs within existing RABs (or establishment of a RAB for this purpose) will be utilized to the maximum practicable extent and in accordance with DoD policies and guidance on the establishment of RABs.

[8] The project team consists of the responsible DoD component and, as appropriate, the Federal land manager(s). Federal land managers will have direct access to information through the project team. The project team will have meetings, conference calls, and/or other methods to ensure regular communication and input. The project team is responsible for:

(1) Scoping of the response action, including but not limited to, problem definition, establishing data quality objectives, selection of response alternatives for evaluation, and project planning.

(2) Preparing all necessary planning documents for conducting the response.

(3) Preparing all reports (including recommendations on appropriate responses) and decision documents related to the response.

(4) Managing the project for purposes of assignment of responsibilities to any subteams, budget, procurement, allocation of resources, and resolution or elevation of disputes.

(5) Coordinating response activities with the EPT, the RAB, or other forums for public involvement.

participating in EPTs, especially groups that represent the public.

b. *Development of a risk assessment model for use at ranges:* The Department of Defense recognizes that there is an urgent need to develop a risk assessment model for military ranges in order to carry out the requirements of these regulations. Although there are already several risk assessment models for ranges under various stages of development, none comprehensively address the risks posed by both military munitions and other constituents. In implementing these provisions, the Department of Defense intends to develop a model or protocol that: (1) Addresses the risks posed by military munitions and UXO and (2) incorporates to the maximum extent possible the models EPA has developed for assessing the acute and chronic risks posed by releases at CERCLA and RCRA sites. The Department of Defense does recognize that completing this model/protocol by the promulgation date of this rule is a very ambitious objective. Should the Department of Defense not be able to finalize the risk model/protocol, an interim model/protocol will be put into place before the promulgation date of this rule. The Department of Defense will develop the model/protocol in consultation with EPA and also will seek input from Federal land managers, States, American Indian tribes, and the public in the development of the model/protocol. The Department of Defense will seek public input by publishing a notice of availability of the interim and/or draft final version of the risk model/protocol. The notice will provide for public comment on this guidance document. Further, the Department of Defense plans to develop a streamlined version of this model/protocol to use as a screening tool, as EPA did with its streamlined version of the Hazard Ranking System (HRS) for screening sites during the CERCLA response process. This streamlined version will rely more on qualitative information than quantitative information. The primary use of this streamlined model/protocol will be to focus the RA/AR process and to assess the need for implementing ARs. The decision to utilize the more detailed risk assessment model/protocol (versus solely the streamlined version) will be made by the Department of Defense in consultation with regulators and the RAB or EPT.

In the explosives safety element of the model/protocol, the Department of Defense plans to consider the following types of factors:

(1) The specific type(s) of military munitions employed on the range.

(2) The quantity of each type of munition employed.

(3) The fuze types used on these military munitions.

(4) The density (i.e., spatial distribution) of UXO on the range.

(5) The estimated depth of the military munitions (based on penetration data).

(6) Public access to the range (i.e., likelihood of exposure of the public).

(7) The terrain, vegetation, soil type, and climate.

(8) Current and anticipated land use.

In the other constituents element of the model/protocol, the Department of Defense plans to incorporate many of the factors considered in the HRS and EPA's ''Risk Assessment Guidance in Superfund (RAGS).'' In general, these models assess the risk posed by the site based on:

(1) The identity and concentration of the constituents known or believed present at the site.

(2) The environmental setting of the site (e.g., surface and groundwater features, soils and geology, terrain, climate, vegetation).

(3) The human and environmental receptors potentially exposed at or near the site.

(4) The exposure pathways of concern (e.g., direct contact, inhalation, ingestion).

(5) The known or suspected acute and chronic hazards posed by exposure.

(6) Current and anticipated land use.

The Department of Defense requests recommendations on additional factors to consider in both the explosives safety and constituent elements of the model/protocol. Further, the Department of Defense solicits recommendations on whether it should integrate these explosives safety and environmental protection elements into a single, unified model.

c. *Technical impracticability:* At a limited number of sites, the Department of Defense foresees that explosives safety concerns and limitations of existing UXO detection and destruction technologies may lead to consideration of site-specific remedies that are limited to institutional controls and monitoring. Institutional controls, such as fences or barriers to control public access, would be implemented to restrict access to unsafe areas and thereby limit the explosives safety risks and constituent threats to human health. Monitoring would be implemented to ensure that constituent releases do not migrate to where they pose unacceptable risks to human health and the environment. At other sites, safety and technical considerations may allow a limited, active response in conjunction with institutional controls and monitoring.

A TI determination may occur during the site evaluation and response action process. An example where active response actions may not be technically practicable is a water range that may be too deep to allow investigation or implementation of an accelerated or site-specific response using current technologies. Other conditions may exist at range sites where it is readily apparent that on-range response actions are technically impracticable due to explosives safety concerns or lack of adequate technology to address the site conditions. Where it is readily apparent, as in the deep water range scenario, that it is technically impracticable to implement active response actions, the Department of Defense may make a TI determination and approve only institutional controls without initial attempts to actively remove UXO from the range. Conversely, there may be range sites where the Department of Defense will extensively investigate and evaluate site conditions and feasible alternatives, implement active response actions, and subsequently discover that the site conditions render a particular type of response action technically impracticable due to explosives safety or technological limitation concerns.

As discussed later in this proposed rulemaking, the Department of Defense proposes to use a range response process that is similar to the NCP process developed by EPA for sites addressed under CERCLA. In arriving at a TI determination, the Department of Defense proposes to develop a TI recommendation that would be included in the appropriate report for the applicable phase or stage of the range response process. The TI recommendation will address the specific information and analyses necessary to support a TI decision and recommendations for actions that may be needed to prevent deterioration of the environmental conditions at the site. These actions may typically include measures to prevent further environmental degradation, implementation of management and institutional controls, and continuation of adequate monitoring to ensure that constituent releases do not migrate from the range and that the constituents left in place do not pose a risk equal to or greater than the explosives safety risk. Reports supporting TI recommendations are subject to review and comment (see § 178.14(c) of this proposal). Decision documents recommending TI determinations are subject to

concurrence (see §§ 178.14 (d) and (e) of this proposal).

The Department of Defense will seek regulator and American Indian tribe concurrence and will consider public comments received on the TI recommendation in deciding whether to approve a TI determination. The Department of Defense will issue a formal decision document if the TI recommendation is approved at the DoD level. A notice of availability for any report containing a TI recommendation will be published. The decision document for such a report, recommending a TI determination, will explain the basis for the decision, a synopsis of comments received and the Department of Defense's responses to relevant comments, any conditions required as part of the TI determination, and the frequency of subsequent periodic reviews (''recurring reviews'') to reevaluate the TI determination. (Recurring reviews are discussed in more detail later in this proposed rule.) The recurring review would determine if: (1) The control measures in place are functioning adequately, and (2) advances in UXO detection or destruction technologies can acceptably reduce the explosives safety risk posed to personnel entering the site. If the recurring review process indicates that the reasons for having issued the TI determination can be overcome, the Department of Defense will reevaluate the need to pursue additional response actions for the range sites. If practicable from a safety and technological viewpoint, the Department of Defense will implement the new response action based on advances in technology.

The concept of TI determinations to forgo certain response actions due to safety or technological limitations is not novel. For example, although used in a different context and on a more limited scale, EPA has previously issued guidance on evaluating the technical impracticability of groundwater restoration at certain sites having hydrogeologic constraints or contaminant-related factors that severely impede the success of active restoration. (For an example, see Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration, Interim Final, OSWER Directive 9234.2–25 [9] (September 1993)). Under appropriate conditions, EPA's guidance allows a waiver of Federal or State cleanup standards that otherwise would be normally required for groundwater restoration efforts under CERCLA. EPA's guidance also allows selection of alternative remedial technologies commensurate with the waiver of the cleanup standards. Due to the extreme safety risks associated with range sites containing UXO and the limited detection technology currently available for effectively locating UXO, the Department of Defense proposes to use EPA's TI waiver concept to implement appropriate and protective institutional controls and to periodically review the practicability of implementing additional response actions.

[9] Copies of EPA's ''Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration, Interim Final, OSWER Directive 9234.2–25'' (September 1993) can be obtained, at cost, from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (telephone 703–487–4650).

E. Detailed Discussion of the Phases of the Range Response Process

1. Identification of Closed, Transferred, and Transferring Military Ranges

The first phase of the range response process is the identification of closed, transferred, and transferring ranges. In this phase, a list of the ranges subject to these requirements will be developed. Proposed § 178.6, Identification of closed, transferred, and transferring ranges, defines the specific requirements for the identification phase of the range response process.

a. *Identification and establishment of a tracking system:* In summary, upon the effective date of these regulations, the Department of Defense will undertake a coordinated effort to identify all land and water areas potentially subject to these provisions. This information will form a permanent record and centralized tracking system for closed, transferred, and transferring military ranges. Such a system provides a valuable tool for the Department of Defense's internal use in managing the program. Furthermore, the Department of Defense intends that the information in this tracking system be readily accessible to the public and other governmental agencies. As mentioned before, one alternative the Department of Defense intends to examine is whether the internet could serve as a means for public access to the tracking system.

The Department of Defense believes the following information about each range is the minimum necessary to include in this tracking system:

(1) A unique identifier for the range.

(2) The common name for the range.

(3) The status of the range (i.e., closed, transferring, transferred).

(4) The name, address, and telephone number of a POC at the Department of Defense or Military Service organization with responsibility for implementing the range rule at that range.

(5) The States and counties (including independent cities and towns) in which the range lies.

(6) A representation or description of the range showing its location, boundaries, and areal extent.

(7) The general type(s) of military munitions used on the range (e.g., artillery, small arms, naval gunnery).

(8) A list of parties other than the Department of Defense or a military department with ownership interest in or governmental administrative control of the land or its resources.

The Department of Defense requests comments on these basic information requirements, specifically with respect to recommendations for additional information to include in the centralized tracking system. In addition, the Department of Defense requests recommendations on other mechanisms for making this information accessible to the public. The Department of Defense plans to update the tracking system, including the priority assigned to each range, at least once per year to indicate which military ranges have entered the RA/AR phase and which ranges have been identified for entering the RA/AR next.

b. *Notices in official land records:* This proposal makes use of current DoD recordkeeping practices. For example, permanent records are required for each range area. These records indicate known and suspected range areas, and identify military munitions used, their hazard, quantity, locations, and UXO rates. Another example is that transfer records are required to detail past ammunition and explosives use, provide information on other constituents present, and advise the user not to excavate or drill in range areas without a metal detection survey. This information is required to be entered in the permanent land records of the civil jurisdiction in which the property is located. To the extent to which any of these records are available for closed, transferred, or transferring ranges, they will be used in the range identification process.

Following identification and collection of sufficient information about the location and boundaries of a range identified under these provisions, the Department of Defense will examine the appropriate land records. A formal notice in the official local land record for that range should include, at a minimum:

(1) The proper legal description of the land that was or may have been used as a military range, including the unique

identifier and common name assigned to that range.

(2) A statement that the land may have been a military range.

(3) A summary description of the hazards commonly encountered at military ranges (e.g., UXO).

(4) The DoD component to contact for additional information about that range.

Upon analysis of additional information and the implementation of accelerated or site-specific responses, the Department of Defense will update this notice to reflect the current conditions at the range.

c. *Supply of information to Federal mapping agencies and State and tribal geographic information systems (GIS):* The Department of Defense also plans to provide certain information on the ranges identified under these requirements to those Federal, State, and Native American tribal agencies charged with the development and distribution of official maps and charts. The Department of Defense will recommend that these agencies include in updates to these maps and charts a means of delineating these areas, as well as several pertinent pieces of information. This information includes the unique identifier for each range, the name of the DoD organization with responsibility for implementing these provisions on that range, and a brief statement of the potential hazards associated with entry into these areas. In addition, the Department of Defense requests comments as to whether this information would be useful to local governmental entities with mapping or zoning responsibilities or to private firms that prepare and print maps for public distribution. If the commentor believes this to be the case, the Department of Defense requests the commentor's recommendations on means to provide that information to those entities.

d. *Prioritization for range assessment/accelerated response:* While the Department of Defense believes that, immediately following their identification, all ranges should enter the RA/AR phase of the range response process, current fiscal realities show a need for a system to determine the order in which ranges enter the RA/AR phase. Of the various approaches available, the Department of Defense believes that one consideration for ranking these ranges for entry into the RA/AR phase is the degree to which the Department of Defense or a Military Service can control access to the area, since this is one simple yet effective means of managing the potential risk posed by the range. Access control sets forth a basis for prioritization, but other environmental factors will be considered, such as imminent hazards, and the likelihood of release migration within 1 year.

Based on the consideration of access controls and risk management, the first group of ranges that would be addressed are those already transferred from DoD control, because the Department of Defense has the least ability to exercise control over those areas. The second group would be the ranges planned or scheduled for transfer from DoD control; these ranges are still subject to DoD control, but failure to transfer the range in a timely manner can impact other activities, for example a land transfer under BRAC Act provisions. The final group will be those ranges that, while closed, are still under DoD control. The Department of Defense recognizes, however, that other factors may influence the need to conduct a response action. Therefore, in determining which ranges will enter into the RA/AR phase, the Department of Defense will consider factors relating to safety and environmental hazard potential, such as:

(1) Whether a site access can be controlled and the population is at risk.

(2) The potential for direct human contact and evidence of people entering into the range area.

(3) Whether a response action has been or is being taken at that range under the FUDS program or other environmental restoration programs.

(4) Planned or mandated dates for transfer of the range from DoD control.

(5) Documented incidents involving UXO or off-range releases of other constituents from the range.

(6) The potential for drinking water contamination.

(7) The potential for destruction of sensitive ecosystems.

(8) The potential for damages to natural resources.

(9) The potential for releases to the air.

(10) The degree of public interest in the range.

(11) The degree of Federal land manager interest in the range.

(12) The degree of state or Federal regulator or American Indian tribe interest in the range.

The priority assigned to each range is another element the Department of Defense plans to include in the tracking system. The Department of Defense plans to update the tracking system, including the priority assigned to each range, at least once per year to indicate which military ranges have entered the RA/AR phase and which ranges have been identified for entering the RA/AR next. The Department of Defense solicits comments on this approach to prioritizing military ranges, with specific emphasis on other factors to consider when assigning a priority ranking to a given range.

e. *Public and government agency involvement:* One of the basic requirements the Department of Defense established when developing this proposal was the commitment to involving the public and government agencies in each phase of the range response process. The responsible DoD component will work with the community to provide information concerning response activities, respond to inquiries, and provide information concerning the conditions at the range. The responsible DoD component will notify, at a minimum, immediately affected citizens, State and local officials, and, when appropriate, civil defense or emergency management agencies. During the identification phase, one of the primary goals is to ensure public access to information on each range subject to these requirements. The Department of Defense does, however, recognize an additional opportunity for public and government agency involvement during this phase. The Department of Defense proposes allowing public and government agency submission of documents identifying the location of closed, transferred, or transferring ranges. Upon verification of the accuracy of such submissions, the Department of Defense would enter that range into the tracking system of ranges subject to these provisions.

The Department of Defense solicits comments on additional mechanisms to involve the public and government agencies in the identification process and means to provide access to information about ranges identified subject to these requirements.

2. Range Assessment/Accelerated Responses

One goal of the RA/AR is to determine the condition of the property. Another goal of the RA/AR phase is finding ways to accelerate the response process by delineating areas within the range where response activities are necessary and by limiting the effort spent collecting data to only the level necessary to address the uncertainties that accompany prompt action. The Department of Defense intends that the RA/AR phase use readily available information to determine if additional investigation or implementation of an AR is warranted, based on range conditions. Therefore, the RA/AR phase is dependent on: (1) Identification of the types and sufficiency of data needed for

an informed risk management decision; (2) the ability to implement ARs when appropriate; and (3) analysis of information to know when (a) enough information either has been or cannot be gathered to make an informed risk management decision, and (b) when an identified risk can or cannot be addressed by an AR. The Department of Defense will be issuing detailed guidance on how to conduct the RA/AR phase and believes that it will be possible to develop standardized procedures and reporting requirements for RA/AR activities.

For clarity, the following discussion presents the RA and AR separately. However, the Department of Defense intends for them to be concurrent, interrelated activities.

a. *Range assessment:* The RA is a limited-scope investigation designed to distinguish between ranges, and areas within ranges, posing little or no safety, human health, or environmental risks and ranges, or areas within ranges, that do pose such risks. Ranges that pose a risk warrant further investigation or implementation of an AR. The Department of Defense intends that the initial effort in an RA be a compilation and analysis of existing information about the range and its surroundings, similar to the CERCLA preliminary assessment or a RCRA facility assessment. The RA emphasizes collection of available information through a combination of file searches and ''desktop'' information collection and analysis. If, based on analysis of the existing information about the range, collection of additional information is believed necessary to better delineate the range or areas within the range where response activities are warranted, then visual inspection of the range or sampling of environmental media may be undertaken to provide an improved understanding of the conditions at the range. The Department of Defense will be issuing guidance on the specific requirements and procedures for conducting an RA.

(1) Scope of the range assessment. The Department of Defense envisions implementing the RA by conducting several levels of information collection and assessment. The first level of the RA is to determine if the range is subject to these requirements and if there is readily available information suggesting that the range poses a hazard. This usually can be done by reviewing the official records of the installation, local records, or other references. Such documents are often the primary source of information on range locations and operations conducted at those ranges.

If in fact the area was or is a military range subject to these provisions, the next phase of the RA is collection of information on the types and quantities of military munitions employed at the range. At a minimum the Department of Defense sees a need for the following types of information:

(1) The type(s) of military munitions employed on the range.

(2) The estimated quantity of military munitions employed.

(3) Time frames during which the military munitions were employed on the range.

(4) The chemical constituents of those munitions.

(5) The fuze types used on these military munitions.

(6) Identification of locations within the range where these military munitions are known or suspected to have been employed.

(7) The estimated density of UXO in those locations.

(8) The estimated depth of the munitions (based on penetration data).

(9) Information on range clearance operations or reported incidents involving UXO on the range.

(10) Safety issues related to military munitions employed on the range.

(11) The type(s) of any targets that may have been used on the range.

(12) Other past and present uses of the range.

This information feeds into the assessment of the risks posed by the military munitions and UXO potentially found on the range.

One of the critical early efforts during the RA is the identification and delineation of areas within a range that pose varying explosives safety hazards and environmental threats. Delineation procedures will adequately define different types of range areas. Delineation of range areas would likely include, but not necessarily be limited to: Impact areas; buffer zones; firing areas; maneuver areas; military munition stockpile areas; open burning/open detonation areas; disposal areas; and any other areas of concern (including off-range areas where constituents may have migrated from on-range sources). Environmental threats can include, but are not limited to, chronic, mutagenic, or teratogenic effects.

A goal of this effort will be to identify areas with a higher explosives safety risk from those areas that are either unaffected or minimally affected. Once delineated, a range area would proceed through the five-phase process independently of other areas. For example, an impact area with a high explosives safety risk that is confirmed to be too dangerous to assess or remediate would proceed on a distinctly different path through the five-phase process than would an adjacent buffer zone that was confirmed to have a lower explosives safety risk but has significant quantities of other constituents. The buffer zone and other site areas that fit into this category would, as a group, proceed to the RE/SSRE phase, where focused characterization and response activities ultimately would take place.

Another goal of range delineation during the RA will be to assess what ARs can be implemented at areas geographically outside ranges with a high explosives safety risk, but where constituent levels from employed munitions or other constituents are significant. It is likely that all ranges will include areas with a lower explosives safety risk, where characterization and possible response efforts may be feasible in order to provide for incremental risk reduction. This will serve to specifically address releases from other constituents.

If the Department of Defense, in consultation with the RAB and/or EPT, determines that any of the following conditions exist, the affected portion(s) of the range should proceed without delay to the RE phase. These conditions are (1) that the range presents issues that are too complex to be addressed in the RA; (2) that all or part of the range poses an imminent threat to human health or the environment which cannot be mitigated effectively through an AR; or (3) that an AR had been implemented but substantial environmental threats remain.

To address the risks posed by other constituents, including CERCLA hazardous substances, known or suspected to be present on the range, the Department of Defense will use existing information on the constituents identified during the assessment of the military munitions employed on the range and any other potential constituents identified from other activities on the range. The goal of this aspect of the RA is to develop an initial ''target'' list of constituents and to suggest locations for sampling for use in later phases in which environmental samples may be collected and analyzed; to identify the corresponding ARARs; and to address the ability of that RA to meet the ARAR requirements and protect human health and the environment. This assessment also will collect readily available existing information on the identity, concentration, and characteristics (e.g., toxicological, fate and transport) of the identified constituents. This information feeds into the initial

assessment of the risk posed by other constituents at the range.

The RA also will require collection of existing data on the environmental setting of the range, the location and identity of receptors potentially impacted by the range, and specific routes of exposure of concern. Specifically, the RA involves collection of existing information on such factors as:

(1) Local hydrologic and hydrogeologic conditions (which includes groundwater).

(2) Soils and geology.

(3) Terrain.

(4) Climate and meteorological data.

(5) Vegetation.

(6) Current and predicted land use.

(7) Cultural resources.

(8) Receptors (i.e., humans, ecological receptors).

(9) Exposure pathways of concern (e.g., direct contact, inhalation, ingestion, or exposure to radionuclides).

The Department of Defense believes that a significant portion of the information needed to address these factors is available from existing sources such as topographic maps, aerial photographs, on-line databases, and published studies.

The preliminary phases of the RA, which depend primarily on existing information, can suggest that a visual inspection of the range or limited-scale sampling of environmental media is necessary to develop a more complete understanding of the conditions at the range or to better delineate areas requiring response activities. In either case, entry onto the range requires the development of an explosives safety plan and submittal of the plan to DDESB for coordination. If the information suggests a need for sampling of environmental media, the DoD organization conducting the response should develop a work plan describing the objectives and plan for conducting the sampling, including the standard operating procedures (SOPs) to be used for the range response. Typically, the plan for sampling and analysis of environmental media will use a format similar to the one used when conducting these activities under a CERCLA response or RCRA corrective action.

Once collected, the information on the military munitions employed at the range, the other constituents believed present, and the environmental setting of the range serves the following purposes:

(1) Identification of any actual or potential threats posed by the site (e.g., reported incidents involving UXO, documented releases of other constituents from the range).

(2) Initial assessment of the identified risks posed by the military munitions and other constituents on the range, with a qualitative identification of the source-pathway-receptor chain and UXO density potential.

(3) Focus of follow-on studies or monitoring.

(4) Assessment of the need to implement ARs.

(2) Accelerated responses. An AR is any readily available, proven method of addressing the identified risks posed by military munitions or other constituents at ranges subject to these requirements. Some examples of ARs include:

(1) Posting signs warning of the danger associated with range.

(2) Erecting fences or other measures to control access.

(3) Implementing simple erosion controls (e.g., silt fences).

(4) Suspending incompatible land uses (where the Department of Defense can do so).

(5) Implementing community education and awareness programs.

(6) Requiring ''dig permits'' at areas where the Department of Defense has control over site activities.

(7) Conducting source removals or surface sweeps for UXO.

(8) Implementing deed restrictions.

(9) Implementing a monitoring program (for example, to assess if constituents are migrating off the range in stormwater runoff or percolating into groundwater).

(10) Providing alternative sources of drinking water.

(11) Performing other effective engineering, institutional, or exposure controls.

This is by no means a complete listing of the types of ARs available to address the identified risks posed by ranges. The Department of Defense plans to develop detailed guidance on ARs in the near term which will be not inconsistent with CERCLA.

The Department of Defense sees merit in using the same criteria for evaluating AR alternatives and for evaluating more complex and tailored site-specific responses. A later section of this proposal provides a detailed discussion of these criteria. The primary differences are in the scope of the evaluation of alternatives, and that the AR analyses rely on qualitative rather than quantitative information. In these ways, the AR process is similar to the process identified in the NCP for non-time-critical removal actions (at least 6 months' planning time) and time-critical removal actions (less than 6 months' planning time). For example, the process for selecting an AR is similar to the engineering evaluation/cost analysis performed as part of non-time-critical removal actions identified in the NCP.

In general, using the data collected during the RA, this process will be a qualitative evaluation of the source-pathway-receptor link that creates the risk. These data will be analyzed to determine which AR options would most effectively sever that link or reduce its impacts.

(3) *Public and government agency involvement*. Before beginning the RA/AR phase, the DoD organization responsible for that range will send a written notice to the appropriate Federal, State, and local officials and American Indian tribes informing them that these activities will be starting. This notice will also request that these officials name a POC within their organization and identify that POC to the project team.

Throughout the RA/AR phase, the public, government agencies, and American Indian tribes will have access to validated information about range conditions, the potential hazards posed by the site, and any ARs undertaken to address those hazards. In addition, the public will have access to RA/AR reports and decision documents. Usually, access to this information is through the information repository; however, unresolved questions or concerns can be taken to the DoD POC or to the EPT, if one exists. Other venues for information exchange are the RAB (if one exists), and/or informal meetings with community leaders or other government officials.

For all ARs where implementation of an on-site action is expected to take more than 120 days to complete, within that period the responsible DoD component will conduct interviews with local officials, community residents, public interest groups, or other interested or affected parties, as appropriate, to solicit their concerns, information needs, and how or when citizens would like to be involved in the range response process. The Department of Defense also will prepare a formal PIP based on community interviews or other relevant information, specifying the public involvement activities that are needed during the response.

Before undertaking an AR, the DoD organization responsible for the activities at that range will formally document its decision. This document will briefly summarize conditions at the range, explain the hazards the AR was to address, and provide other useful and relevant information.

Except where an emergency response is required to address an imminent

threat to human health or the environment, the public, regulators, American Indian tribes, and (where appropriate) Federal land managers will be provided a reasonable opportunity to comment on proposed RA/AR actions, based on information included in the RA/AR report. This report will be subject to a 45-day review and comment period prior to implementation of the AR. If requested, the Department of Defense also will hold a public availability session. If the physical construction associated with an AR, including implementation of site access control measures, is reasonably expected to be completed within 120 days of the commencement of the AR (i.e., completion of the RA), the opportunity for review and comment may be provided during or when the AR has been implemented. While an AR might be fully protective, the majority of ARs will be interim responses by nature, particularly those for which the physical construction is reasonably expected to be completed within 120 days of commencement. In cases where an AR is expected to be fully protective and to make a site-specific response unnecessary, public participation through review and comment on the RA prior to implementation of the AR should be afforded, even when the AR can be implemented within 120 days.

3. Evaluation of Range Assessment/Accelerated Response Results

As discussed in Section IV.E.2 of this preamble; one goal of the RA/AR process is to couple existing information with a limited gathering of additional information to make informed risk management decisions at the range. If the range poses a hazard, ARs, as appropriate, can be taken to address that hazard. This process continues until enough information is available to make an informed risk management decision (or, alternatively, the effort necessary to collect that information is beyond the scope of the RA); and all identified hazards have been addressed through implementation of an AR (or a determination has been made that ARs are unable to address the identified hazards).

Once at this point, the DoD organization conducting activities at the site may implement a time-critical AR or will make the RA/AR report available for comment and will then issue a decision document for the proposed action. The RA/AR report will document the findings of all assessment activities and the reasons for and effectiveness of each AR at the range. The RA/AR report will also make one of the following recommendations:

(1) Issue a determination of no further action (typically where the area was not a range or there is no appreciable risk associated with the range).

(2) Conduct recurring reviews because all identified risks have been effectively managed and are expected to remain effectively managed in the long-term.

(3) Conduct an RE because of a need for additional information to make an informed risk management decision or in anticipation of a site-specific response to address the remaining hazards.

(4) Issue a TI determination because, while a risk remains, there are no alternatives available capable of addressing the identified risk. For example, a TI determination would be appropriate at a naval gunnery range located in deep water (i.e., over 300 feet deep), where existing technology is not available to effectively implement a response. Another example would be an artillery range with a large number of UXO located in a small area of rugged terrain where manual clearance is required. Due to the density of the UXO, entry into the area may be too hazardous to undertake; clearance of one UXO by detonation may lead to sympathetic detonation of nearby rounds, due to the proximity of the UXO item to other UXO items. This situation would present an unacceptable explosives safety risk, in that the sympathetically detonated round may undergo a low-order detonation, scattering unconsumed explosives over a wide area, worsening the problem. In a case such as this, not directly addressing the UXO while implementing other types of control measures may be the most appropriate response action. Typically, recommendations for other appropriate control measures and recurring reviews will be a part of a recommendation for the TI determination.

Once the draft RA/AR report is complete, the Department of Defense will include it in the administrative record and make it publicly accessible at the information repository. The Department of Defense also will publish a notice of availability of the draft RA/AR report and brief description of the action being proposed in the report in a major local newspaper of general circulation and announce a 45-day period for submission of written comments to the DoD POC for that range. If requested, the Department of Defense will hold a public meeting or availability session. Following the comment period, the Department of Defense will develop written responses to significant comments received during the comment period, consider any issues brought out by these comments, and prepare a formal decision document outlining which recommendation will be adopted. A copy of the decision document and all supporting information will become a part of the administrative record for the military range, and the Department of Defense will mail a copy of the decision document to all appropriate government agencies and the current property owner.

4. Range Evaluation

REs are detailed investigations of the military munitions employed on the military range, the other constituents believed or known to be present, and the environmental setting. Generally, an RE will be performed when making an informed risk management decision requires the collection and analysis of a significant quantity of quantitative information not otherwise available. This information collection often is a complex, long-term effort (e.g., groundwater monitoring) that demands careful planning before its execution. This phase includes evaluation of site safety, and potential human health and ecological impacts. RE examples include, but are not limited to:

(1) Military ranges where chemical munitions were employed and where the RA/AR process shows a potential exposure from a chemical agent release.

(2) Military ranges where land use or the degree of public access is incompatible with the condition of the range following the RA/AR process.

(3) Military ranges with a reasonable potential for contamination of surface water or groundwater that is in excess of applicable standards and which is a potential source of drinking water.

a. *Scope of a range evaluation:* The types of information collected during the RE are similar to those collected during the RA/AR phase and serve the same purposes; however, the information collected is far more specific and typically quantitative in nature. For example, while the RA/AR phase sought information on the type(s) of military munitions employed on the range, an RE might seek to determine the specific military munitions employed. Similarly, where the RA/AR used estimates of various values such as the quantity of military munitions employed on the range and the density (i.e., distribution) of UXO, the RE uses a combination of detailed ''desktop'' evaluations and field sampling to refine the estimates.

The first step in conducting the RE is reviewing the available information to focus the RE. The Department of Defense intends all REs to be focused studies, tailored to answering specific

questions. Conducting such a focused study requires defining:

(1) The objective of the information collection effort (i.e., what question is to be answered).

(2) The boundaries of the information collection effort.

(3) The role of the data in supporting risk management decisions.

(4) The specific type, quantity, and quality of information to collect to meet the objective.

(5) The acceptable level of uncertainty (in terms of the accuracy) of the information.

For example, to assess the risk posed by the other constituents known or suspected to be present on the range, the Department of Defense will use existing information on the other constituents identified during the RA, as well as any other readily available sources. This review will provide the basis for developing a ''target'' list of potential constituents. This approach also will focus the collected information on the health and environmental characteristics of the constituents that may be present on the range. Similarly, it is possible to focus collection of information on the environmental setting. If, for example, the range is in an area where, due to an extremely high concentration of total dissolved solids, the groundwater is not useful for drinking or agriculture, it may be appropriate to limit assessment of potential groundwater impacts.

b. *The range evaluation plan:* The Department of Defense intends this focusing effort to lead to the development of a single, concise document, the RE plan. The RE plan will provide all necessary information about the objectives established for the RE, the rationale for those objectives, and how those objectives will be achieved. For example, this document would explain the focus of the RE, define the objective(s), boundaries, data uses, sampling and analysis protocols, safety, and data analysis procedures required to complete the RE. The Department of Defense will issue detailed guidance on how to conduct an RE, and believes that it will be possible to develop a standard RE plan that, with minor modifications, can be adopted for use at the majority of these ranges. The DoD organizations conducting the RE will make this document a part of the administrative record and will publish a notice of availability in a local newspaper. The notice will summarize the purpose of the document and inform the public how to gain access to the RE plan. At a minimum, the RE plan will be made available at the information repository.

c. *The range risk assessment:* The collection and analysis of additional information about conditions at the range lead to the primary purpose of the RE, a detailed, quantitative assessment of the risks posed by the military munitions and other constituents at the range. The level of risk posed by the site is one element in making an informed risk management decision about the need for a site-specific response.

In general terms, the military range risk assessment model/protocol the Department of Defense plans to develop requires similar types of information for military munitions and other constituents. These information requirements include:

(1) Identification of the source of the risk (e.g., identification of the specific military munitions or other constituents).

(2) Identification of receptors, pathways, and potential for exposure.

(3) Identification of the effects of exposure (e.g., the types of injuries that accidental explosion of military munitions can cause; the acute, chronic, and carcinogenic effects of exposure to other constituents).

While the explosives safety and other constituent risk assessments generally require similar types of information, the specific information requirements are different and reflect the basic differences between explosives safety risks and constituent releases. For example, injury from the detonation of conventional military munitions requires either direct or indirect exposure to the energy (as pressure or heat) released by the explosion, or to energy imparted to materials by the explosion (e.g., shrapnel); generally, the injury is due to physical trauma. In contrast, exposure to other constituents usually involves entry into the receptor by ingestion, inhalation, or dermal absorption, and the effects are due primarily to disruption of physical functions in the receptor. Therefore, the specific information required to assess the effects of exposure will be different.

Currently, the risk assessment models used for military munitions and UXO do not adequately address the potential risks associated with constituent exposure. Likewise, the risk assessment models for constituent exposure do not address the effects of explosions or other injuries caused by military munitions. For these reasons, the Department of Defense will be developing, in consultation with and with the assistance of EPA, a risk assessment model or protocol to use at military ranges. This risk assessment model or protocol will provide an assessment of risks posed by military munitions and UXO at the range, as well as the human health and environmental risks posed by the constituents to: (1) Provide an estimate of the risks posed by military range conditions; and (2) to serve as a tool for assessing (a) the effectiveness of a given response at addressing those risks and (b) the potential consequences (either positive or negative) of implementing a response targeted at addressing a specific risk. The Department of Defense, in conjunction with EPA, will seek Federal land manager, State, American Indian tribe, and public input during the development of the risk assessment model or protocol. Because of the importance of this model/protocol, an interim version is to be developed and made publicly available prior to the promulgation of the final rule. A final version will be developed and made publicly available no later than 1 year after the final rule is promulgated.

It is equally important to note that, since the explosives safety element of the overall range RA examines the identified risks posed by military munitions and UXO on the range, an evaluation of these risks must be conducted concurrently with the development of the RE plan, especially if on-range data collection is contemplated. Even if very limited information on potential explosives safety hazards exists, any such information is critical to assessing the practicality of on-range actions and to developing the explosives safety plan (which must be submitted to DDESB for approval before commencing any on-range activity). Like the explosives safety risk assessment, the constituent risk assessment examines the risks posed by constituents known or suspected of being present on the range. The preliminary phases of this assessment also will need to be conducted concurrently with the development of the RE plan, since the information requirements for the constituent risk assessment are critical to focusing investigative efforts. Furthermore, available data on the constituents known to be or suspected of being on the range are critical to developing a health and safety plan for on-site workers.

d. *Public and government agency involvement:* During the RE, the public, government agencies, and American Indian tribes have access to validated information about range conditions and the potential hazards posed by the site. In addition, the public will have access to the final RE report and any related decision documents. As with the RA/AR, access to this information is through the information repository, the

DoD POC, the EPT (if one exists), the RAB (if one exists), and formal or informal meetings. Furthermore, before beginning the RE, the DoD component responsible for that range will send a written notice to appropriate Federal, State, and local officials informing them that these activities will be starting.

If a formal RE report is prepared, then a 45-day public comment period on the report will occur, as well as a public availability session if requested. If the recommendation is to proceed directly to the SSRE, however, a letter report will summarize the RE findings and the public comment period will occur on the SSRE report. Following the public comment period, the Department of Defense will develop written responses to significant comments received during the comment period and consider any issues brought out by these comments. A copy of the draft decision document will be provided to the appropriate Federal or State agency, American Indian tribe, and Federal land manager for concurrence.

5. Range Evaluation Findings

The goal of an RE is to couple existing information with focused information collection to assess the risk posed by the military munitions and other constituents on the military range. This information is necessary to make informed risk management decisions. Once the objectives set for the RE are reached, the findings and conclusions will be presented in a formal RE report. Depending on the scope and findings of the RE, the RE report also will make one of the following recommendations:

(1) Conduct recurring reviews because the quantitative analyses demonstrated that all identified risks are effectively managed and will remain effectively managed over the long term.

(2) Issue a TI determination because, while a risk remains, there are no available alternatives capable of addressing the risk. Typically, recommendations for other appropriate control measures and recurring reviews will be a part of a recommendation for a TI determination.

If the findings of the RE demonstrate a need for a site-specific response to address remaining risks, the Department of Defense may prepare a letter report instead of an RE report and proceed directly to the SSRE. If a letter report is prepared, then the DoD organization conducting the response must prepare a formal decision document that summarizes the findings of the RE, identifies the hazards requiring a site-specific response, and describes the anticipated scope and starting of the SSRE. This decision document will be made available to the public, and concurrence will be sought from appropriate Federal, State, and American Indian tribal officials.

If, however, the responsible DoD component recommends either proceeding to the recurring review process or issuing a TI determination, the responsible DoD component will prepare a formal RE report, publish a notice of availability and a brief description of the RE report in a major local newspaper of general circulation, and announce a 45-day period for submission of written comments to the DoD POC for that military range. If requested, the Department of Defense also will hold a public meeting or availability session. Following the comment period, the Department of Defense will develop written responses to significant comments received during the comment period, consider any issues brought out by these comments, and prepare a formal decision document on which recommendation will be adopted. A copy of the decision document and all supporting information will become part of the administrative record for the range, and a copy of the decision document will be mailed to appropriate government agencies and the current property owner.

6. Site-Specific Response Evaluation

An SSRE examines various response alternatives that address risks posed by the range which have not been or cannot be effectively addressed by ARs. The SSRE process is similar to the feasibility study under CERCLA; however, there is one very important distinction: explosives safety is a frequent overriding concern. If a given response alternative cannot minimize explosives safety risks, then it will be dropped from consideration. EPA stated in the preamble to the final NCP that short-term effectiveness:

> * * * will consider who may be exposed during the remedial action, what risks those populations may face, how those risks can be mitigated, and what risks cannot be readily controlled. Workers are included in the population that may be affected by short-term exposures. (55 FR 8722, March 8, 1990)

Furthermore, the NCP explains that the threshold assessment of overall protection ''draws on the assessments of other evaluation criteria,'' which specifically includes the short-term effectiveness (40 CFR 300.430(d)(iii)(A)). Hence, in the remedy selection process, worker safety is not only considered when determining the short-term effectiveness of a remedy, but is also an integral part of the analysis in determining whether a remedial alternative meets the threshold requirement of overall protectiveness. As EPA stated in response to comments on the proposed NCP:

> EPA agrees that unacceptable short-term impacts can cause an alternative to be considered non-protective of human health and the environment and can remove that alternative from consideration as a viable option. (55 FR 8725, March 8, 1990)

EPA adopted a similar approach, in which one factor carries more weight than others, in developing the evaluation process under the NCP (40 CFR 300). Under the NCP, EPA considers overall protection of human health and the environment and compliance with ARARs as ''threshold criteria'' that each alternative must meet to be eligible for further consideration.

The Department of Defense intends to identify and address ARARs exactly as prescribed under CERCLA and in the NCP. In the event that the Department of Defense wishes to waive an ARAR, it will justify the waiver under the criteria and processes stipulated under CERCLA and in the NCP. The Department of Defense will provide a written description of the ARAR to be waived; the waiver type to be invoked; and the justification for invoking the waiver. The Department of Defense will provide regulators with the opportunity to review and concur on ARAR waivers, as appropriate. The provisions of CERCLA Section 121(f)(2)(B), concerning a State's ability to challenge ARAR waivers, remains unaffected by this range rule.

a. *The Department of Defense screening process:* The NCP allows use of a screening process to reduce the number of alternatives to be considered in detail if a wide array of alternatives initially is developed. The screening process involves three evaluative criteria: (1) Long- and short-term effectiveness; (2) long- and short-term implementability; and (3) long- and short-term cost-effectiveness. Effectiveness of alternatives refers to their overall performance in eliminating, reducing, or controlling current and potential health risks, both during planning and implementation. Short-term effectiveness includes consideration of risks to workers who are involved in conducting the response. EPA guidance allows, at the screening process, elimination of alternatives that are clearly unacceptable in terms of short- and long-term human health risks. EPA guidance further provides that this evaluation is based primarily on many simplifying assumptions and on professional judgment at the screening

stage and is intended to identify alternatives with clearly unacceptable short-term risks. At DoD range sites covered by the proposed rule, the Department of Defense anticipates that the explosive risks posed by military munitions to response personnel will warrant screening out response alternatives that might otherwise be considered at typical CERCLA sites. If a given response alternative cannot provide adequate explosives safety, this will result in its elimination from consideration. If however, none of the on-range response alternatives identified provide for adequate explosives safety for workers involved in the response, the Department of Defense must consider other alternatives that will prevent the situation from worsening, or that will prevent or control releases of UXO or other constituents from the range, or prevent community exposure.

b. *Scope of the site-specific response evaluation:*As with REs, the Department of Defense intends that the SSRE be a highly focused investigation of response alternatives to address a specific risk. Where similar risks were successfully addressed at other ranges, the SSRE should focus on only those alternatives, rather than on conducting research and development of alternative technologies.[10] In recent years, EPA has adopted a similar philosophy and now advocates examination of ''presumptive remedies.'' Presumptive remedies are preferred technologies for common categories of sites, based on historical patterns of remedy selection, and scientific and engineering evaluation of performance. Focusing on developing standardized approaches for addressing the identified risks posed by a military range would allow streamlining of the process, provide consistent resolutions when dealing with recurring problems, and usually result in significant savings.

c. *The site-specific response evaluation plan:* The Department of Defense intends this focusing effort to lead to the development of an SSRE plan. The SSRE plan will be a single, concise document that provides all necessary information about the objectives established for the SSRE, the rationale for those objectives, and how those objectives will be achieved. As necessary, the document will detail sampling and analysis protocols, safety requirements, data analysis procedures, or treatability studies required to complete the SSRE. The SSRE plan will be part of the administrative record, and the Department of Defense will publish a notice of its availability in a local newspaper. The notice will summarize the purpose of the document and inform the public how to gain access to it. The Department of Defense will be issuing detailed guidance on how to conduct an SSRE and how to effectively convey the information in the SSRE plan to the general public.

(1) Conducting the site-specific response evaluation. Once the SSRE plan is complete, the first step in conducting an SSRE is to identify a preliminary list of objectives for the response. These preliminary objectives will depend on the various site-specific factors such as the type of problems to be addressed, environmental setting, and subsequent land use. The second step is to identify general classes of response actions that meet or exceed the preliminary objectives identified for the response. The third step is to determine or estimate the scope of the response using an appropriate unit of measure. This can be, for example, the quantity of military munitions or media present or the size of the range. This determination allows elimination from further consideration of remedial alternatives that are incapable of treating the necessary quantity of military munitions or contaminated material in a reasonable time frame. The fourth step is to identify and screen specific technologies and, within a class of technologies, options for the actual treatment process. The fifth step is detailed evaluation of the effectiveness of the remaining options. The sixth and final step is to identify the alternatives or combinations of alternatives for a more detailed evaluation.

Any alternative that remains under consideration after the final step may require individual treatability studies, if such studies are needed, to provide sufficient data to: fully assess the alternative's suitability; support its design and implementation (if selected); or refine cost estimates and reduce performance uncertainties. Treatability studies are not required for all alternatives; if enough information exists to allow an accurate evaluation of each remedial alternative without conducting treatability studies, the Department of Defense will weigh the cost and time of conducting such a study against the potential benefits.

The detailed analysis of range response alternatives consists of examining each alternative against the following nine criteria, which are used by EPA in evaluating CERCLA remedial alternatives. A comparative analysis of the proposed alternative to each of the other alternatives is then performed. In developing these criteria, the Department of Defense adopted the basic concepts embodied in the nine evaluation criteria used to assess remedial alternatives under the NCP.

(1) Overall protection of human health and the environment (including explosives safety and natural resources).

(2) Compliance with ARARs established under Federal and State law.

(3) Long-term effectiveness and permanence.

(4) Reduction in toxicity, mobility, quantity, or volume.

(5) Short-term effectiveness.

(6) Implementability.

(7) Cost.

(8) Acceptability to appropriate Federal and State officials.

(9) Community (including property owner) acceptance.

Explosives safety and protection of human health, including risks posed to response personnel, are of paramount concern. Under EPA guidance, the detailed evaluation of responses resulting from each alternative must consider short-term risks. EPA considers the short-term risk to response personnel in evaluating whether a proposed remedial alternative meets the threshold criterion of overall protection of human health and the environment. The Department of Defense expects that explosives safety and risk to response personnel will be recurring issues and overriding considerations in the detailed evaluation of alternatives for range responses.

The first criterion addresses the ability of each alternative to protect human health and the environment from the acute, chronic, and carcinogenic effects of exposure to the constituents present at the range. This criterion draws on the constituent risk assessment and the evaluations of other criteria, especially the long- and short-term effectiveness evaluations. The Department of Defense believes that, in evaluating this criterion at military ranges subject to this proposed rule, a balance will need to be struck between protection of human health (including explosives safety) and protection of the environment. For example, while it may be feasible to excavate UXO to a depth of several feet over a large area, doing so will have a negative impact on the local environment. If that area also were critical habitat to a threatened or endangered species, then the benefits of UXO removal would have to be balanced against the disruption of that species' habitat. Furthermore, if a response alternative cannot minimize explosives safety risks, it will be

[10] In August 1996, the Department of Defense established a UXO Technology Executive Committee that will centralize the efforts on research, development, and management of technology for UXO detection, neutralization, and remediation.

dropped from consideration. In assessing this criterion, an explosives safety plan addressing all alternatives will be submitted to the DDESB for evaluation.

Compliance with Federal and State ARARs is identical to the evaluation criteria required under CERCLA and the NCP. This criterion requires evaluation of the ability of each alternative to comply with chemical-specific, action-specific, and location-specific requirements that are either directly applicable to the response action or, in best professional engineering judgment, similar enough to the conditions of the site and response action to warrant their use (termed by EPA as ''relevant and appropriate requirements''). For example, the Department of Defense's on-site response actions must comply with the substantive requirements of RCRA. Under CERCLA, the Department of Defense plans to adopt the process established in the NCP for waiving an applicable requirement. If required, concurrence of that waiver must be sought from the appropriate Federal or State agencies. For the assessment of the effectiveness of an AR, compliance with applicable requirements is required only to the extent practicable given the exigencies of the situation. In this way, this requirement is directly analogous to the requirement for ARAR compliance during a CERCLA removal action.

The long-term effectiveness evaluation assesses the residual risk posed by military munitions or other constituents that will remain at the range following the completion of the response action, and considers the reliability and adequacy of those actions in providing a long-term or permanent solution to the hazard posed at the range. The Department of Defense also believes that this criterion should consider any long-term liabilities associated with the response. For example, in evaluating a response action when wastes will be shipped to an off-site commercial facility for treatment or disposal, the Department of Defense should consider the potential CERCLA liability incurred by that action.

Evaluation of how the response reduces the explosives safety risks, toxicity, mobility, quantity, or volume of the military munitions or constituents (as appropriate) involves assessment of the effectiveness of the alternative at treating the military munitions or other constituents present on the range and the quantity that will remain following the response action.

The short-term effectiveness criterion addresses the risks or impacts of the alternative from the start of the action through to the time when the response objectives are achieved. Under this criterion, each alternative is evaluated to determine the degree of protection afforded to on-site workers and the surrounding community during implementation. Each alternative is also examined for possible adverse environmental impacts arising from implementation of the response or the time required to achieve the response action's objectives.

The implementability criterion assesses both the technical and administrative feasibility of implementing each alternative. Included in this assessment are (1) consideration of the availability of the necessary resources to implement the alternative, (2) an assessment of the reliability of the alternative (also a consideration under the short- and long-term effectiveness criteria), and (3) whether the action will impede other responses at the range. Another aspect of this assessment is the determination of the requirements for interaction with other Federal, State, or local agencies or American Indian tribes. For example, this assessment may require determining the need for obtaining a permit for a given alternative. Another factor the Department of Defense may consider in the assessment under this criterion is the availability of on- and off-range treatment and disposal units for wastes generated by the response action. In the case of chemical munitions, the statutory provisions of 50 U.S.C. 512a regulate the transportation, destruction, and open-air testing of these munitions; thus, the availability of the treatment or disposal capacity at the nearest chemical military munitions stockpile facility may be one of the most important factors limiting response alternatives. The Department of Defense is currently developing mobile treatment systems for these chemical munitions in an effort to preclude any need to transport them off-site.

Cost evaluation requires assessment of the direct and indirect capital costs as well as the operating and maintenance (O&M) costs associated with the alternative. O&M costs are usually a significant portion of the overall costs. The evaluation of this cost should consider any long-term financial liability associated with the response.

Assessment of the last two criteria, acceptability of each alternative to Federal and State agencies and community acceptance, requires consultation with these parties. By this point in the range response process, the public and government agencies should be fully engaged and their concerns already addressed. Some of the ways the DoD organization conducting the response can achieve this goal is through an EPT or RAB (if one exists), and through mechanisms such as public availability sessions.

Once all the alternatives are evaluated against the nine criteria to see if they meet the basic requirements, they are compared to one another to determine the pros and cons of each. For example, one alternative might provide a reduction in risk equal to another for a similar cost, but have a far greater potential for requiring another action sometime in the future. A specific example involves the use of off-site disposal facilities as opposed to an on-site action. In this case, the Department of Defense would need to consider the potential CERCLA liability arising from a release at the off-site facility in making the selection. Another example would be where one alternative provides a slightly higher degree of protection than another, but at vastly greater cost. The balancing of these alternatives will need to evaluate carefully the significance of the difference in protection and the significance of the cost difference. Such a determination in balancing the alternatives should be based on quantitative analysis, but ultimately the decision is largely a matter of professional judgment.

(2) Explosives safety and the nine NCP criteria. Explosives safety issues will be adequately addressed under the current CERCLA process by using the existing nine criteria described in the final NCP. Specifically, worker safety is part of the analysis in evaluating the criterion of short-term effectiveness. EPA states in the preamble to the final NCP that the short-term effectiveness criterion considers: who may be exposed during the remedial action; what risks those populations may face; how those risks can be mitigated; and what risks cannot readily be controlled. Workers are included in the population that may be affected by short-term exposures (55 FR 8723, March 8, 1990).

Section 2.2.9 of EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, EPA/540/G–89/004 [11] (October 1988) is consistent with the NCP position. This guidance states, ''Protecting the health and safety of the investigative team and the general public is a major concern during remedial response actions. Workers may be exposed to a variety of hazards

[11] Copies of EPA's ''Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, EPA/540/G–89/004'' (October 1988) can be obtained, at cost, from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (telephone 703–487–4650).

including toxic chemicals, biological agents, radioactive materials, heat or other physical stresses, equipment-related accidents, and fires or explosions.''

Furthermore, the NCP explains that the threshold assessment of overall protection ''draws on the assessments of other evaluation criteria,'' which include short-term effectiveness (40 CFR 300.430 (d)(iii)(A)). Hence, in the remedy selection process, worker safety is considered not only when determining the short-term effectiveness of a remedy, but also as an integral part of the threshold requirement of overall protectiveness. As EPA stated in response to comments on the proposed NCP, ''EPA agrees that unacceptable short-term impacts can cause an alternative to be considered non-protective of human health and the environment and can remove that alternative from consideration as a viable option'' (55 FR 8725, March 8, 1990). In summary, information as presented in the NCP, as well as EPA guidance, ensures that risks to workers during investigative and response actions would be adequately addressed within the present CERCLA process.

d. *Site-specific response evaluation report:* As discussed in Section IV.E.5. of this preamble, if the identified risks posed by the military range require an SSRE, an RE letter report may be prepared in lieu of an RE report. The SSRE report will document the findings of both the RE and the SSRE. The SSRE report will provide a complete summary of the information collection and range risk assessment conducted during the RE, as well as the findings and conclusions of the SSRE. Depending on the findings of the RE and SSRE, the SSRE report will make one of the following recommendations:

(1) Identifying the recommended response alternative(s) for implementation, discussing the hazard(s) the response is to address, the results of the evaluation criteria, and the means of assessing the effectiveness of that response after it has been implemented.

(2) Conducting recurring reviews because the quantitative analyses demonstrated that all identified risks are effectively managed and are expected to remain managed in the long term.

(3) Issuing a TI determination because, while an identified risk remains, there are no available alternatives capable of addressing the risk. Typically, recommendations for other appropriate control measures and recurring reviews will be part of a recommendation for a TI determination.

e. *Public and government agency involvement:* The Department of Defense will provide a copy of the draft SSRE report to appropriate Federal and State agencies for review and comment. The Department of Defense also will publish a notice of availability and brief summary of the SSRE report in a major local newspaper of general circulation, and announce a 45-day period for submission of written comments to the DoD POC for that range. If requested, the Department of Defense also will hold a public meeting or availability session. Following the public comment period, the Department of Defense will develop written responses to significant comments received during the comment period and consider any issues brought out by these comments.

If significant changes result from this process, it may be necessary to issue a revised SSRE report and solicit further public comment. This is necessary only if the changes are so dramatic that they could not have been foreseen based on information available before the public comment period. Evaluation of new alternatives because a waiver of an applicable requirement was not granted is one example of when this might occur; however, selection of a new preferred alternative from among those already evaluated would not trigger the need for further comment. Following the comment period and development of written responses to those comments, the Department of Defense will formally document its decision and reasons for choosing the selected response alternative.

The Department of Defense will prepare a formal decision document describing the actions to be taken. A copy of the final SSRE report, the decision document, and all supporting information will become part of the administrative record for the range response at that site. A copy of the draft decision document will be provided to the appropriate Federal or State agency, American Indian tribe, and Federal land manager for concurrence.

f. *Documenting the selection of alternatives:* A formal decision document will identify the alternative(s) to be implemented and discuss the goals of the response (e.g., the risk to be addressed) and how the response will achieve those goals. This discussion needs to provide information as to how the alternative(s) provides for explosives safety, protects human health and the environment, addresses the concerns that the public and government agencies expressed in written comments, and eliminates, reduces, or controls the identified risks posed by military munitions or other constituents present at the military range. The decision document also will: (1) Discuss the Federal and State ARARs; (2) identify any ARARs not met; (3) provide justification for a waiver of those requirements; (4) specify the conditions of any waiver; and (5) discuss coordination of the waiver with appropriate Federal or State agencies. Finally, the document will discuss whether military munitions or other constituents will remain at the range. If so, the document also must describe the specific mechanisms used to ensure that land use remains compatible with any remaining military munitions or other constituents, and describe the frequency of recurring reviews. A copy of the decision document and all supporting information becomes a part of the administrative record for the range, and a copy of the decision document will be mailed to appropriate Federal and State agencies, American Indian tribe, and the current property owner.

7. Site-Specific Response Implementation

Under both the CERCLA response and the RCRA corrective action programs, implementation of the selected responses is a separate action from the detailed site assessment, evaluation of remedial alternatives, and process for selecting the remedy. The Department of Defense sees no real need for this demarcation; indeed, the Department of Defense hopes that the preliminary phases of implementing a site-specific response can be occurring simultaneously with the development of the formal decision document. This is not an indication that the Department of Defense will not give the comments received on the SSRE report careful and deliberate consideration, but rather that the Department of Defense hopes to speed the design, construction, operation, and monitoring of the response by capitalizing on existing information, design documents, or plans. This will be especially true if the alternative is either an accelerated response used by the Department of Defense at a military range or a ''presumptive remedy'' used by the Department of Defense, EPA, or another Federal agency at a site undergoing a CERCLA response or RCRA corrective action.

a. *Implementation planning:* Once the site-specific response selection process is complete, the DoD organization conducting the response will plan implementation, operation, and monitoring of the response alternative. This planning process includes several required steps, such as setting design and performance specifications,

preparing complete construction drawings and operating plans, and starting the procurement of any required goods or services. In addition, the Department of Defense is considering including another recommended practice: preparing an implementation strategy document to describe the manner and methods to meet the requirements of applicable Federal, State, and local regulations for performance and construction; reduce environmental and community impacts; address the technical factors related to the design; account for assumptions made in developing the design; and account for possible sources of error in the design process. This document also would outline contingency plans for managing foreseeable deviations.

b. *The response implementation plan:* As with every other phase, the Department of Defense believes that focusing the implementation process is critical to the success of the response. To achieve this, the Department of Defense proposes to develop a single, concise document providing all necessary information about the objectives established for the response, the rationale for those objectives, and how those objectives will be achieved. As necessary, the document also will detail the design, construction, operation, maintenance, monitoring, and decommissioning of the response alternative. An explosives safety plan addressing explosives safety risks will be developed and forwarded to DDESB for approval. This document will be part of the administrative record, and the Department of Defense will publish a notice of its availability in a local newspaper. The notice will summarize the purpose of the document and tell the public where and how to gain access to it.

c. *Implementation of the alternative:* The first step in implementing the response is development of appropriate sets of construction drawings, engineering calculations, process flow diagrams, critical path analyses, and lists and specifications for all equipment and materials. Development of operational guidance for and training of personnel involved in implementing the response should begin as needed. Once these elements are in place, implementing the response is a two-phase process. The first phase involves the actual construction and initial operation of the response, and the second phase involves operation until the response achieves the response objectives. Actual implementation or construction includes conducting necessary quality assurance inspections and preparing any necessary periodic reports on progress in executing the response. Clearly, there must be DDESB review of all phases of the implementation process, including the construction and acceptance testing activities. This function ensures that the construction of the remedy follows the specifications and requirements detailed in the planning process for implementation and the terms of any contracts for operation. The Department of Defense also will monitor the response to determine its effectiveness. Upon completion of each phase of monitoring, the results will be analyzed to determine if the remedy has achieved the response objectives.

d. *Public and government agency involvement:* Any releasable documents or reports developed during this phase of the range response process are part of the administrative record and will be made available for public inspection at the information repository. The public, government agencies, and American Indian tribes may take concerns or questions about the response directly to the DoD POC, the EPT, or the RAB. Federal or State agencies that have granted a waiver from an applicable requirement may request regular updates on the progress of the response and its compliance with any conditions imposed in granting the waiver.

8. Recurring Reviews

In this rule, the Department of Defense is proposing to require recurring reviews of ARs, conditions imposed as part of a TI determination, and site-specific responses. Sites issued a determination of no further action will not be subject to recurring reviews, but if a previously unidentified risk is identified at a later date, the Department of Defense is obligated to take necessary response actions.

The purpose of recurring reviews is to determine if the responses taken continue to ensure explosives safety, protect human health and the environment, prevent off-range releases of other constituents, and provide an opportunity for assessing the applicability of new UXO technology or other new technology that will overcome a previous TI determination.[12] The focus of the review will depend upon the response objectives and the specific responses implemented to address the identified hazards at the range. For example, for responses that provided explosives safety or human health protection through limiting access to the range, the recurring review will focus on the effectiveness of the mechanisms and institutional controls put into place to control access. For ranges where a long-term response is required, the recurring review will focus the ability of the response to achieve its specific performance objectives within a specified time frame.

a. *Frequency of recurring reviews:* Under CERCLA Section 121, EPA conducts reviews of remedial actions at sites on the NPL at least every 5 years, starting with implementation of the remedial action. The Department of Defense is proposing that the first recurring review at closed, transferred, and transferring ranges occur after 3 years. Subsequent recurring reviews would occur at year 7 and at 5-year intervals thereafter, or as necessary to ensure that the response is still effectively addressing the identified risks posed at the range. The Department of Defense proposes this frequency because problems with responses typically manifest themselves in the time shortly after implementation. Recurring reviews will be set on a more frequent schedule (e.g., years 2, 5, 9, 14 * * *) when necessary.

The Department of Defense also proposes that should a problem with a response be identified outside the recurring review process, for example by a private citizen, that party can submit a request to the DoD component responsible for the range to have the response reviewed. Such a request will need to provide sufficient details as to the location of the range, the problem noted, and the identity of the party submitting the request so that it can be handled in a timely manner.

b. *Documenting recurring review findings:* At each recurring review, the Department of Defense will formally document the review procedures and the evaluation criteria used to assess the effectiveness of the response in a recurring review report. The document also will describe any information collected or analysis conducted as part of the review. Finally, the document will provide a discussion of the findings, stating whether or not the response continues to address the hazards at the range and if any new problem is discovered in the period since the last review. If the response failed to remain effective, or if a new problem is discovered, the DoD component responsible for that range will provide a discussion of what actions will be taken to return the response to full effectiveness. If a new problem is identified, the responsible DoD component will document the actions to be taken to address that problem and the schedule for the

[12] The Department of Defense has established a UXO Technology Executive Committee that will centralize the assessment of new UXO technologies.

actions. For the most part, this will involve returning to the appropriate phase of the range response process (e.g., go back to the RA/AR phase and implement an AR). The responsible DoD component then will take action as necessary to address the risks posed by the range.

c. *Public and government agency involvement:* If the review determines that the response remains effective, the Department of Defense will publish a notice to that effect in a major local newspaper of general distribution. The recurring review report will be included in the administrative record and made publicly available at the information repository. If the review finds that the response is not effective, the Department of Defense will publish a notice to that effect and will hold a public meeting or availability session if requested to do so by the public. Furthermore, the Department of Defense will prepare a formal decision document describing any actions to be taken and will send formal written notice to appropriate Federal, State, and American Indian tribal officials that discusses the findings of the review and the Department of Defense's planned actions to address the risks posed by the military range. A copy of the draft decision document will be provided to the appropriate Federal or State agency, American Indian tribe, and Federal land manager for concurrence.

9. Ending the Range Response Process

Following completion of an appropriate number of recurring reviews to demonstrate that the range is unlikely to pose an explosives safety risk or a risk to human health or the environment, the Department of Defense will administratively close out and end the range response. Typically, this will require that:

(1) The Department of Defense has demonstrated that any military munitions or other constituents at the range pose minimal hazards.

(2) The specific response objectives are achieved and all related monitoring activities to demonstrate that are complete.

(3) For responses that do not involve restoring groundwater or surface water (for example, in-situ soil treatment), the response is fully operational and performing to design specifications. A response becomes ''fully operational'' either 1 year after construction is complete or when the remedy is determined to be functioning properly and is performing as designed, whichever is earlier.

(4) For response actions involving treatment or other measures to restore groundwater or surface water quality to a level that ensures protection of human health and the environment, the operation of such treatment or other measures for a period of up to 10 years after the response becomes ''fully operational'' will be considered part of the response action, and not O&M.

(5) The only remaining activities at the site involve O&M. O&M measures are initiated after the response action has achieved its goal as outlined in the decision document, and is determined to be ''fully operational'' (except for groundwater or surface water restoration actions as described in IV.E.9.(4)).

Once these requirements are met, the Department of Defense will prepare a range close-out report justifying completion of the response. This report will include:

(1) A summary of the range's history and past and current conditions.

(2) Demonstration that all response objectives have been met.

(3) A determination that sufficient monitoring results have been collected to demonstrate that the response objectives have been achieved.

(4) Demonstration that any long-term maintenance requirements for the response are capable of being successfully carried out.

(5) Documentation that the range response has effectively addressed the hazards posed by military munitions and other constituents at the range.

a. *Public and government agency involvement:* The responsible DoD component will provide a copy of the draft range close-out report to the appropriate State and Federal agencies, American Indian tribe, and Federal land manager for their review and comment. The Department of Defense also will publish a notice of availability and brief summary of the range close-out report in a major local newspaper of general circulation, and announce a 45-day period for submission of written public comments to the DoD POC for that range. If requested, the Department of Defense also will hold a public meeting or availability session. The Department of Defense will prepare a formal decision document describing the actions to be taken, and will provide that document to the appropriate regulators, American Indian tribe, and Federal land manager for concurrence in accordance with § 178.14 of this rule. A copy of the draft decision document will be provided to the appropriate Federal or State agency, American Indian tribe, and Federal land manager for concurrence. The final range close-out report, decision document, and supporting information will be placed in the administrative record for the range response.

b. *The Department of Defense's continuing obligation:* Under DERP and 10 U.S.C. 172, the Department of Defense is never fully relieved of its obligation to address environmental damages caused by military munitions or other constituents. If at some future date a problem is discovered at a range where the Department of Defense completed the range response process, the Department of Defense will conduct an appropriate response to address that problem. This response typically will be handled as an explosives or military munitions emergency response; however, if the circumstances indicate a need for a more detailed response, the Department of Defense will reopen the range response process and conduct any appropriate actions. If a response is needed due to the Federal land manager's or property owner's failure to comply with the deed restrictions or other land-use limitations placed on the use of the property, however, the Department of Defense is not responsible for conducting any part of the response that has been made necessary by this failure to comply. After the range rule process has been administratively ended, the Department of Defense is still responsible for continuing any long-term maintenance or monitoring requirements that were part of the Department of Defense response at a given range.

The Department of Defense also has stated that if technology limits the range response and the use of the land is restricted, but later, cost-effective improvements in technology allow for the removal of such a restriction, the Department of Defense is responsible for conducting a later response, if doing so is consistent with the land transfer agreement and reasonably anticipated land uses that were originally identified and there is a current need for the removal of such a restriction. Assessments of the applicability of new technology typically will occur in the recurring review phase, but also may arise after the range response has been administratively ended. Assessment of the applicability of new technology will relate to new UXO technology or other new technology that will overcome a previous TI determination.

F. Other Issues

1. DoD Environmental Response Authorities and Relationship to Other Laws

a. *Regulatory and environmental response authorities:* In this proposed rule, the Department of Defense has

articulated, for the first time in regulatory form, the nature and extent of its environmental response authorities under DERP, DDESB, and CERCLA. It has chosen to do so in the case of response activities at closed, transferred, and transferring ranges because of the unique risks to safety, human health, and the environment posed by such sites, and because of the Department of Defense's expertise in safely managing the risks posed by military munitions and military ranges. DERP, DDESB, and CERCLA give the Department of Defense authority to respond to releases or threatened releases from its facilities (including NPL sites). Like any other executive agency that has been directed to carry out a legislative mandate, the Department of Defense is entitled to create regulations that spell out how this mandate will be effectuated. The Department of Defense has chosen to do this for range responses because of two focused, statutory mandates that direct the Department of Defense's attention to the issue of ordnance and range activities: DERP and 10 U.S.C. 172, which established the DDESB. In this proposed rule, the Department of Defense intends that military munitions and other constituents on closed, transferred, or transferring military ranges are to be addressed under DERP and DDESB authorities in a manner that is not inconsistent with CERCLA. Accordingly, substantive requirements of RCRA may be the source of ARARs to any response actions deemed necessary. This proposed rule's process is one that is tailored to the unique risks posed by military munitions and military ranges (i.e., the risks of UXO and any other constituents that may emanate from UXO, exploded ordnance, or range activities).

When Congress established DERP in 1986, it directed the Secretary of Defense to ''carry out a program of environmental restoration'' at facilities under the jurisdiction of the Secretary of Defense. Section 2701(b)(2) of DERP specifically cites one of the program goals of DERP to be the ''correction of other environmental damage (such as detection and disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment.'' Under 10 U.S.C. 172, the Department of Defense has a specific charter to prevent ''hazardous conditions from arising to endanger life and property inside or outside storage reservations'' when it comes to military munitions (including UXO). The DoD agency entrusted with carrying out this mandate is the DDESB. The DDESB is a multi-Service entity that has issued military munitions safety standards and guidance documents such as DoD Directive 6055.9, Ammunition and Explosives Safety Standards,[13] that are followed by all of the armed Services. Case law and the opinion of the U.S. Attorney General support the concept that the DDESB has broad rulemaking powers regarding safety issues over munitions (1949, 41 Op. Atty. Gen. October 27;[14] see also *McQueary* v. *Laird,* 449 F.2d 608 (10th Cir. 1971)[15] and *Pratt* v. *Hercules, Inc.,* 570 F. Supp. 773 (D. Utah 1982)).[16] Thus, DERP and DDESB are the foundation for the Department of Defense's creation of a range-specific response process.

The DERP and DDESB authorities are then combined with the preexisting authority and obligations under CERCLA to engage in environmental response activities. The Department of Defense was already involved in removal and remediation activities at its facilities under the auspices of its Installation Restoration Program (IRP) for many years prior to the creation of CERCLA. The scope of this early IRP was responding to the releases or the substantial threat of releases of hazardous substances into the environment, as well as pollutants and contaminants that present an imminent and substantial danger to public health or welfare. The Department of Defense's IRP continued, with certain modifications, after the enactment of CERCLA in 1980. The Superfund Amendments and Reauthorization Act (SARA) clarified the nature of the Department of Defense's authority to respond to releases from its installations. SARA created CERCLA Section 120, which waived Federal sovereign immunity to the requirements of CERCLA.

CERCLA Section 104 states that the President is authorized by Congress to take removal and remedial actions consistent with the NCP whenever there is a release or a substantial threat of a release of a hazardous substance into the environment or a release or threat of release of a pollutant or contaminant into the environment that may present an imminent and substantial danger to public health or welfare. CERCLA Section 115 states that the President is authorized to delegate any assigned duties or powers and to promulgate any regulations necessary to carry out the requirements of CERCLA.

In E.O. 12580 (59 FR 2923 (January 23, 1987)), the President in Section 2(d) delegated his Section 104 authority (as well as other authorities) to the Secretary of Defense with respect to releases or threatened releases where either the release is on or the sole source of the release is from any facility or vessel under the jurisdiction, custody, or control of the Department of Defense. The President's delegation to the Secretary of Defense is not conditioned on the NPL status of the release in question. The Department of Defense must exercise its CERCLA authority in a manner consistent with the requirements of Section 120 of CERCLA.

CERCLA Section 120 requires the Department of Defense to perform restoration activities in a manner consistent with guidelines, rules, regulations, or criteria developed by EPA, such as the NCP. In the NCP, EPA has recognized the various delegations made in E.O. 12580 and the various responsibilities of Federal agencies under CERCLA Section 120 by referring to Federal agencies that are responding to releases from their facilities as CERCLA ''lead agents.'' This ''lead agency'' status applies regardless of whether the release in question is from an NPL or a non-NPL site (i.e., ''the Federal agency maintains its lead agency responsibilities whether the remedy is selected by the Federal agency for non-NPL sites, or by EPA and the Federal agency or by the EPA alone under CERCLA Section 120'' (40 CFR 300.5)).

The Department of Defense has been designated as the lead removal response authority with respect to military munitions in the NCP (40 CFR 300.120(d)). Thus the Department of Defense has lead agency authority under CERCLA (see also 40 CFR 300.5). Currently under the CERCLA program, the Department of Defense has the authority to select the appropriate response at non-NPL sites that are under the jurisdiction, custody, or control of the Department of Defense.[17] At NPL sites, EPA and the Department of Defense jointly choose the appropriate

[13] Copies of DoD Directive 6055.9 may be obtained, at cost, from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (telephone 703–487–4650).

[14] Copies of this Attorney General opinion may be obtained by visiting the DoD range rule administrative record at 910 Clopper Road, Gaithersburg, MD 20878–1399 (telephone 301–258–8753).

[15] Copies of this case may be obtained by visiting the DoD range rule administrative record at 910 Clopper Road, Gaithersburg, MD 20878–1399 (telephone 301–258–8753).

[16] Copies of this case may be obtained by visiting the DoD range rule administrative record at 910 Clopper Road, Gaithersburg, MD 20878–1399 (telephone 301–258–8753).

[17] Note that DoD authorities under DERP also extend to carrying out response actions consistent with DERP and CERCLA at a ''site which was under the jurisdiction of the Secretary'' of Defense.

response. If there is a disagreement, EPA has the final decision. The Department of Defense wants to make it clear that the hallmark of an effective ''lead agency'' is effective involvement by the public, as well as by EPA and State regulators. The Department of Defense believes that the process proposed in this rule allows responses at military ranges to be evaluated in an open fashion, with direct public and regulator involvement. Other Federal agencies have been delegated similar CERCLA authorities in E.O. 12580 in connection with facilities under their jurisdiction, custody, or control.

While this proposal is not inconsistent with the CERCLA process, an interaction and balancing of immediate UXO safety concerns with potential chronic environmental concerns must occur. Unlike other materials, UXO poses an immediate explosives safety risk to human health that must be considered before environmental concerns can be addressed. While explosives safety remains an overriding concern, the Department of Defense recognizes that if CERCLA hazardous substances or RCRA hazardous wastes exist on the range, other regulatory authorities (e.g., State RCRA authorities) may apply. As a practical matter, requirements could be imposed outside of the area suspected of containing UXO to address contamination from these hazardous substances or waste (for example, groundwater collection).

Certain regulators have designated constituents of military munitions as a hazardous waste or hazardous substance under their State CERCLA/RCRA programs. Some States may assert a regulatory cleanup authority, despite the Federal statutory bases for the Department of Defense's response process. Should conflicts develop between the Department of Defense and regulators, it is the Department of Defense's intention to work out compromise solutions that will respect the statutory and regulatory authorities of all parties and yet achieve the necessary expedited and safe response envisioned by this proposed rule, while recognizing that the regulatory agency retains decision-making authority, consistent with CERCLA and RCRA, for human health and the environment.

The Department of Defense's proposed range-specific response process is further supported by the unique threats that military munitions pose to human health and the environment. The Department of Defense's use of military munitions has arisen from its mission of national defense, and the Department of Defense has special expertise in managing explosives safety risks. As described throughout this rule, the risks to safety, human health, and the environment inherent in locating and responding to such relatively unstable materials as UXO are considerable. The location and response activities associated with other constituents are equally dangerous because such activities will typically occur within areas containing UXO. The Department of Defense is the recognized expert in the management of these risks. With its years of experience in safely handling and managing UXO, the Department of Defense has the expertise for determining when immediate safety concerns may prevent certain actions to address potential environmental concerns. Due to the specialized mission of the Department of Defense, the requirement for explosives safety expertise is a critical element unavailable within other organizations. The Department of Defense maintains the nation's institutional military munitions knowledge. EPA has formally recognized the Department of Defense's expertise in explosives safety, and it is appropriate that the Department of Defense regulate the safety implications of UXO on ranges. Typically, Federal, State, and local regulators seek the Department of Defense's expertise when it comes to safely managing military munitions and other ordnance discovered at non-DoD sites. Since it is an expert in military munitions, it is appropriate for the Department of Defense to use its inherent statutory explosives safety and environmental response authorities in DERP, 10 U.S.C. 172, and CERCLA to address the risks posed by military munitions and other constituents at the Department of Defense's closed, transferred, and transferring military ranges.

In summary, the Department of Defense believes there are three reasons that justify establishing a special process for response activities at its closed, transferred, and transferring military ranges: (1) The specific emphasis addressing the imminent and substantial threats posed to human health and the environment by military munitions that is found in DERP and 10 U.S.C. 172; (2) the general delegation of response authority given to the Department of Defense by Congress under DERP and by the President under CERCLA; and (3) the unique nature of the threats posed to human health and the environment by military munitions and military ranges.

b. *Relationship to other laws:* Under this proposal, the Department of Defense will follow the ARAR process in selecting response activities at its closed, transferred, and transferring ranges, and as such, many environmental laws will be considered at this stage. If further action is necessary and can be safely performed, these additional environmental laws will be considered. For example, in the process of removing military munitions, or even installing some protective measures, habitat destruction may occur. If the response action could affect a species listed pursuant to the Endangered Species Act, the Department of Defense must consult with the U.S. Fish and Wildlife Service to ensure that the action is not likely to jeopardize such species or adversely impact its designated critical habitat. In addition, prior to any excavation, the Department of Defense will take appropriate measures to identify resources protected under the National Historic Preservation Act, Archeological Resources Preservation Act, and Native American Graves Protection and Repatriation Act. If any protected resources are likely to be affected, the Department of Defense will comply with the requirements of these acts.

Another example of coordination with other laws involves the Safe Drinking Water Act (SDWA). If contaminants on a military range are affecting the quality of an actual or potential drinking water supply (e.g., a Class I or II groundwater as defined under the SDWA), then, consistent with CERCLA Section 121, this contamination must be addressed. Safety factors under the DERP program would still be considered, and it is possible that safety factors could require alternatives other than source removal, such as collection and treatment of contaminated groundwater outside the range area.

Clean Air Act requirements such as emission limits in a State Implementation Plan (SIP) could be a source of ARARs. In the case of remedial activities that generate air emissions, for example, the response would have to meet the SIP's substantive requirements.

Under RCRA, if military munitions/UXO are excavated from the range and taken off-site, RCRA hazardous waste requirements would apply, as appropriate. As stated in EPA's military munitions rule, ''used or fired munitions are solid wastes when they are removed from their landing spot and then either (1) managed off-range * * * or (2) disposed of (i.e., buried or landfilled) on-range'' (62 FR 6632, February 12, 1997). Also, EPA has made it clear in the preamble to the NCP and various CERCLA guidance documents that aspects of the RCRA corrective action program may also be a source of

ARARs for the Department of Defense's response actions. For example, the flexibility afforded to restoration activities by RCRA's corrective action management unit and temporary unit concepts may be of use in expediting the Department of Defense's restoration activities.

The Department of Defense solicits comments on the interaction of this proposed range rule process with other environmental laws and regulations.

2. Water Ranges

The process of conducting response activities at closed, transferred, and transferring water ranges is particularly daunting. The retrieval, rendering safe, and even the location of military munitions in such ranges are extremely difficult. For example, tidal action may make maneuvering difficult and visibility poor; deep waters require remotely operated equipment; and military munitions often are buried in sediments. Orientation and location are therefore extremely difficult in the ocean environment. Typically, the Navy is limited to diver point searches and sweeps for recovery of military munitions. There is no technology available with the accuracy and discrimination needed to rapidly survey, detect, pinpoint, and classify underwater military munitions.

UXO has a long life in the underwater environment. Projectiles and bombs are designed with thick metal cases that take years to corrode. Nonetheless, experience with aged intact military munitions reveals that fills are typically in deteriorated condition, with formation of metal/explosive compounds and other chemical changes. Because such materials may be more sensitive, most UXO recovered from water ranges is destroyed soon after it is recovered. The toxicity of military munitions ingredients in water ranges generally is low. Most toxic compounds are rapidly decomposed by hydrolysis, photolysis, and oxidation once they are dissolved in water.

Because of the inherent difficulty in locating, rendering safe, and/or retrieving military munitions in water ranges, and because of significant risks to human health and safety posed to Navy personnel by such activities (i.e., the dangers inherent in underwater activities), as well as the water range UXO itself (i.e., its relatively unstable and sensitive nature), the types of ARs and site-specific responses will likely be significantly different than the responses for land-based military ranges. With regard to responses at water ranges, this proposed rule will be implemented in a manner consistent with the rights and obligations of the United States under the Law of the Sea Convention.

3. Other Range Activities

Activities not related to training or researching, developing, or evaluating military munitions may occur or have occurred on closed, transferred, and transferring military ranges. Some examples of these activities are open burning/open detonation (OB/OD) and certain explosive ordnance disposal (EOD) activities.

OB/OD sites are used to thermally treat waste military munitions by a controlled burn or a controlled detonation. Some OB/OD sites were in use for a number of years before RCRA was enacted. Many OB/OD sites were located within military ranges. OB/OD operations may not have completely destroyed the military munitions, resulting in the presence of UXO and its associated explosives safety risks.

OB/OD sites that exist on closed, transferred, and transferring ranges and were never permitted (and did not need to be permitted during their active life) are covered by this rule because they may contain UXO or other constituents. According to current RCRA standards, RCRA-permitted OB/OD facilities (or OB/OD facilities that should have been permitted) need to undergo RCRA closure as directed in their individual treatment facility permit or post-closure care permit, once the decision has been made that the facility will no longer be operated.

In ''Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities' (59 FR 55778, November 8, 1994), EPA recently proposed eliminating the regulatory requirement that it issue permits to all facilities subject to post-closure care requirements in favor of imposing the same substantive requirements at the facility by using ''alternate legal authorities.'' Although EPA's rule has not been finally promulgated, the Department of Defense intends to work with EPA to establish its CERCLA/DERP authorities as an adequate alternate legal authority for purposes of CERCLA/DERP-based response actions (in lieu of RCRA closure activities) at appropriate OB/OD sites located on the Department of Defense's closed, transferred, and transferring ranges.

EOD ranges are not sites that are used for routine OB/OD activities. EOD sites are designated to be used for EOD procedures that are conducted during munitions or explosives emergency responses. Individual and organizational EOD training may also be conducted at these sites. Often, EOD sites are located within military ranges, which provide the explosives safety distances from personnel, buildings, and facilities, as well as controlled access to the ranges. Both of these conditions also are required for EOD sites. EOD sites involved in such activities are within the scope of this proposed rule. EOD activities that are non-emergency and non-training are usually waste treatment and disposal activities and are conducted at permitted facilities; such activities are not covered by this rule.

4. Chemical Agent Constituents

Live chemical agent testing and demilitarization prior to 1969 was performed on certain military ranges. Some of this testing occurred on closed and transferred ranges, and possibly on some transferring military ranges as well. When chemical munitions were employed on a military range, a certain percentage of the fired military munitions did not function and became UXO. Chemical UXO poses a unique and difficult situation for the technical escort unit (TEU), an EOD team specially trained to handle chemical munitions. Although the explosive component of a chemical UXO is much less than that of the conventional high-explosive UXO, TEU personnel must assess the round and handle the UXO wearing personal protective equipment and follow special procedures and techniques unique to the Department of Defense and the Chemical Warfare Material program in case of a chemical release. This greatly slows the assessment and handling process. Increased safety precautions are necessary when there is a potential for the presence of chemical UXO, due to the potentially greater risk to the health and safety of workers and the public should a chemical UXO detonate. In addition, the transport and destruction of lethal chemical agent are regulated by 50 U.S.C. 1512 and 1512a, requiring special approvals by the Secretary of Defense and the Secretary of Health and Human Services prior to either transport or destruction. In addition, notification is required to be given to Congress and affected State governors prior to any such destruction or transportation.

5. Buried Military Munitions

The historical and then-acceptable practice by the Department of Defense was to bury certain military munitions. Many of these past burial sites have been remediated, but a number of them still exist, and some may be located on closed, transferred, or transferring ranges. The Department of Defense

believes that military munitions disposed of by burial or disposal in a landfill are a solid waste, and, if hazardous, would be subject to RCRA Subtitle C regulation when unearthed and further managed; they could also potentially be subject to RCRA corrective action and/or CERCLA. These buried munitions pose the same safety and hazard risks as UXO. In fact, buried munitions can involve greater safety risks than UXO, because the number and types of military munitions may not be known. The presence or suspected presence of buried military munitions will be a significant factor in whether response actions can be performed on the range. Even though they are potentially subject to RCRA, burial sites that are located on closed, transferred, or transferring military ranges should be evaluated in accordance with this rule. The Department of Defense solicits comment on this approach of addressing past burial sites of military munitions on closed, transferred, and transferring ranges.

6. Depleted Uranium

Depleted uranium (DU) is a byproduct of the uranium enrichment processes. DU is used in the commercial sector by the aircraft industry as counterweights, by the power industry as radiation shielding, and by the military as an armor-piercing projectile due to its hardness, strength, and density. DU's potential radiation exposure is small. As an alpha particle emitter, its radiation does not penetrate human skin or even ordinary paper. DU may be present on closed, transferred, and transferring ranges. DU is regulated by the U.S. Nuclear Regulatory Commission.

7. Regulator, American Indian Tribe, and Public Involvement

a. *General:* The Department of Defense will ensure a substantial role for the public, American Indian tribes, and regulators in this rule's process. In addition to the detailed roles outlined in Section IV.E. of this preamble, d etailed discussion of the phases of the range response process, the Department of Defense encourages States to enter into a Defense/State Memorandum of Agreement (DSMOA) to increase State involvement and strengthen the DoD/State partnership. The Department of Defense will make use of established RABs to involve the public throughout the process, or other forums, such as EPTs, as the specifics of the site and interest of the community dictate. While a finalized Defense and Tribal Memorandum of Agreement (DTMOA) does not yet exist, a DTMOA would be treated in a similar fashion.

The Department of Defense intends to seek regulatory agency involvement throughout the range response process. Communication and participation with environmental regulators should be frequent and should go beyond participation in RABs. While RABs are a valuable forum for communication between community, regulator, and the Department of Defense stakeholders, the RAB should not serve as a substitute for regulator involvement. The level of regulator participation should be consistent with the BRAC guidance on regulator involvement. Frequent communications, such as weekly or monthly progress meetings, data exchanges, and early notification of new information, are critical to building a team approach between environmental regulators and the DoD component responsible for the range.

Range responses executed with BRAC and Environmental Restoration Account funds will be eligible to be incorporated into the DSMOA process. The DSMOA process is designed to account for State oversight in the BRAC and Environmental Restoration Account programs, but prohibits incorporation of other projects not funded by these two accounts. To address the revision of the cooperative agreements, the Department of Defense is contemplating a special revision cycle for the States to incorporate new requirements resulting from the DoD range rule.

b. *American Indian tribes:* The U.S. Government has a unique legal relationship with Native American tribes as set forth in the U.S. Constitution, treaties, statutes, and court decisions. In implementing this rule's proposed process, the Department of Defense will act in a manner that is consistent with the ''Government-to-Government Relations With Native American Tribal Governments'' memorandum issued by President Clinton (59 FR 22951, May 4, 1994), the Native American Graves and Repatriation Act (as mentioned in Section IV.F.1.b. of this preamble, Relationship to Other Laws), and any military policies on Native American relations.

Section 178.4(c) provides a definition of American Indian tribe as used in this proposed DoD range rule. To be afforded substantially the same treatment as States under this rule, and thus receive a concurrence role, the governing body of the American Indian tribe must be federally recognized by the Department of Interior; have an appropriate tribal governing body that performs health, safety, or environmental functions; and have real property interests (as defined in § 178.4(l) of this rule) over some or all of a closed, transferred, or transferring range at which a response, including pre-response activities, is ongoing or contemplated.

To ensure meaningful participation by federally recognized tribes and villages that do not meet this rule's definition of an American Indian tribe, the Department of Defense encourages such tribes and villages to participate in RABs and/or EPTs as applicable, and to participate in all public forums provided (such as attending public meetings and technical education programs, and commenting on site-specific documents and notifications produced during the range response process). On a site-specific basis, the Department of Defense intends to notify, coordinate with, and consult with Native American tribes and Native Alaskan villages in accordance with tribal trust obligations and with the presidential memorandum on government-to-government relations. Furthermore, the Department of Defense recognizes that federally recognized tribes and villages have specific rights created under treaties, statutes, and other regulations. For example, the NCP provides that a Native American tribe may bring an action for injury to, destruction of, or loss of natural resources belonging to, managed by, controlled by, or appertaining to such tribe, or held in trust for the benefit of such tribe, or belonging to a member of such tribe if such resources are subject to a restriction on alienation (55 FR 8788, March 8, 1990). Nothing in this proposal is intended to preempt or restrict such tribal rights, privileges, or authorities.

This proposal also describes what information and notices are to be provided to appropriate officials of the American Indian tribes (see, for example, § 178.7(e)). Notices to these officials should also include the affected trustee (e.g., the Department of Interior), when applicable. The Department of Defense particularly requests comments on this portion of the proposed rule, especially concerning the relationship between federally recognized tribes and this rule, the level of detail needed on this subject, and the interaction between tribes and States under the range rule.

c. *State involvement in ARARs:* The Department of Defense will provide the States 45 working days to review the draft RA/AR report, the draft RE report if prepared, the draft SSRE report, the draft range close-out report, and the draft recurring review report. A key component of the DoD/State partnership will be the communication of potential Federal and State ARARs and, as appropriate, other pertinent advisories,

criteria, or guidance to be considered (TBCs), prior to the response selection. ARARs and TBCs will be identified early in the alternatives analysis to allow adequate time to identify them and screen the alternatives appropriately. The Department of Defense will request that the States review and concur in the draft decision document for each phase of the range response process. If the responsible DoD component is considering a waiver of State ARARs, it will place the waiver request in the appropriate decision document being submitted for concurrence.

8. Small Arms Ranges

Small arms ranges are a subset/type of military ranges. Military ranges are designed to teach, sustain, and maintain individual and collective group (i.e., unit) skills. Multipurpose ranges support integrated live-fire training of large caliber weapons (such as tanks) with small arms (machine guns). Small arms training is therefore not always confined to a range dedicated solely to a particular type of small caliber weapon. Because small arms ranges, along with large caliber and multipurpose ranges, are commonly configured around a common impact area in a range complex, small arms ranges can be located inside the surface danger zone of other ranges, such as artillery or tank ranges, thus increasing the chance of UXO or other military munitions and debris being present on the range. It is also possible that the area of the small arms range may have been used in the past as a military range that employed large caliber weapons, thus again increasing the chance of UXO or other military munitions and debris being present.

Smaller caliber weapons also are uniquely military in nature due to the types and specifications of ammunition they use; they must meet military specifications and be manufactured to U.S. and North Atlantic Treaty Organization (NATO) standards. The ammunition used is designed for a number of purposes: for use against armored aircraft, light armored vehicles, concrete shelters, and other bullet-resistant targets; incendiary effects against aircraft; signaling; personnel; and light material targets. Due to the type and specifications of the ammunition, small arms ranges are covered by this proposed rule if they are located on a closed, transferred, or transferring military range.

9. Guidance

The Department of Defense will develop implementing guidance on this proposed rule. The guidance will be coordinated with the EPA, States, American Indian tribes, and other Federal agencies before being issued as final. This guidance will address, at a minimum, implementation of the safety risk assessment model or protocol, the decision-making process, and record searches.

10. Dispute Resolution

The Department of Defense has structured this proposed process for range response activities to maximize frequent and meaningful public, American Indian tribe, and regulator involvement. As such, the process should typically resolve issues before they become disputes. The proposed rule contains a formal alternative dispute resolution (ADR) process for Federal and State regulatory agencies, American Indian tribes, and Federal land managers in § 178.15(b).

If, however, a dispute arises that cannot be resolved informally, the Department of Defense encourages any property owner who is not specifically described in § 178.15(b) and who may feel aggrieved by the Department of Defense's response activities to pursue the following ADR[18] mechanism with the Department of Defense to resolve differences: A property owner disputing a response at a closed, transferred, transferring range can submit the dispute in writing to the DoD POC for that range. The Department of Defense will attempt to resolve the dispute within 30 days, or a longer period if mutually agreed upon. Negotiation and other forms of mutually acceptable, nonbinding ADR, which may include non-binding mediation by a qualified third party, may be utilized. If a mutually agreeable resolution is reached, it will be documented in writing. If, after 30 days or a longer agreed-upon period, a mutually acceptable resolution is not reached, the parties may exercise any rights, remedies, or privileges available to them under applicable law. For example, if a hazardous substance is involved, the citizens' suit provision of CERCLA may be applicable. Additionally, procedures under the Military Claims Act (10 U.S.C. 2732 *et seq.*) could be utilized by private property owners of transferred ranges. In addition, the dispute resolution processes spelled out in E.O. 12088 (43 FR 47707, October 13, 1978) and E.O. 12146 (44 FR 42657, July 18, 1979) are available for disputes between Federal agencies and between Federal and State agencies. The Department of Defense solicits input on whether this ADR process for property owners should be a mandatory requirement or if any mechanisms should even be suggested.

A more formalized dispute resolution procedure is included for Federal and State environmental regulatory agencies, American Indian tribes, and Federal land managers in § 178.15(b). The Department of Defense encourages environmental regulators, American Indian tribes, and Federal land managers to utilize this dispute resolution procedure instead of asserting additional statutory authorities over environmental remediation at military ranges, although the use of these procedures does not preclude the use of other statutory authorities. Additionally, site-specific or area-wide agreements may be applicable to a given military range which may provide for alternative dispute resolution procedures. The procedure specifically applies to Federal and/or State environmental regulators, American Indian tribes, and Federal land managers as appropriate.

The formal procedure provides for five levels of dispute resolution: the project manager level, the installation commander level, the military headquarters level, the environmental policy-maker at the Secretariat staff level, and an appropriate political appointee with responsibility for environmental policy within the responsible DoD component. Because the title varies among the military departments, the terms ''headquarters level'' and ''principal environmental policy-maker level'' are used. For example, for the Air Force, the term ''headquarters level'' would refer to the Major Command to which the installation reports, while the term ''principal environmental policy maker'' would refer to the Air Force Deputy Assistant Secretary for Environment, Safety, and Occupational Health. These personnel would meet with a similarly positioned person in the Federal or State agency or American Indian tribe.

An additional level of dispute resolution is available to Federal agencies: elevating the dispute to the Office of Management and Budget (OMB). The dispute resolution process recognizes that regulatory agencies dissatisfied with an outcome under the dispute resolution process may elect to pursue resolution under other applicable laws such as CERCLA or RCRA. Nothing in this rule is intended to preempt State regulatory or enforcement powers or authority concerning hazardous waste or

[18] The Administrative Dispute Resolution Act (5 U.S.C. 571 *et seq.*) and E.O. 12778 (56 FR 12778 (October 23, 1991)) encourage Federal agencies to utilize ADR processes to resolve issues that might otherwise be litigated.

hazardous substances, nor is it intended to affect the waiver of sovereign immunity by the United States contained in the Federal Facility Compliance Act of 1992 or any other environmental law.

In recognition of their unique status, the dispute resolution mechanism provided to American Indian tribes in the DoD range rule is similar to that offered to the States. The final phase of the dispute resolution process provides for resolution between the Secretary of the Military Department, or his/her designee who must be a political appointee whose appointment requires the advice and consent of the Senate, and the American Indian tribal leader or his/her designee. Because the title may vary among the various American Indian tribes, the term ''tribal leader'' has been used to refer to the head of the tribe. Thus the term American Indian tribal leader would refer to the Governor, President, Chief Executive Officer, or other final decision-maker for the American Indian tribe.

In addition to this first option for the final step in dispute resolution for States and American Indian tribes, as presented in § 178.15(b)(5), the Department of Defense is considering a second and third option. The second option is to provide the State governor or the American Indian tribal leader with final decision-making authority for issues under dispute. While the Department of Defense is considering this option, it believes that there are significant legal impediments. In the range rule, the Department of Defense voluntarily acknowledges its obligations, independent of any other authorities that might be available to State regulators or tribes, to address UXO and other constituents from DoD activities on closed, transferred, and transferring ranges. Because the Department of Defense is utilizing statutory authorities for which it has responsibility and no authority to delegate, it believes it should be the final decision-maker under the DoD range rule. Since nothing in the range rule removes or limits any authorities the States and tribes have, the Department of Defense will have a strong incentive to ensure that any actions it takes under the range rule will be fully satisfactory to States and tribes.

The Department of Defense is, however, seriously considering the third option. Under this option, should the Secretary of the responsible DoD component's military department and the State governor or American Indian tribal leader be unable to resolve a dispute by consensus, then the responsible DoD component would prepare a written statement acknowledging the inability of the responsible DoD component and the State or tribe to resolve the dispute and recognizing that the responsible DoD component and the State or tribe may pursue their authorities under any applicable law.

The Department of Defense believes that utilization of the mechanisms in this proposed rule, in lieu of any other authorities that might be applicable, would present substantial advantages for all interested parties because environmental and safety risks will be addressed more promptly and more comprehensively through this rule. As made clear in the dispute resolution provision, if a State or Federal agency or American Indian tribe is dissatisfied with the results of the application of this rule, there is recourse outside the Department of Defense; the State may choose to apply other legal authorities that might be applicable, and the Federal agency may elevate the dispute to OMB or choose to apply other applicable legal authorities.

CERCLA Section 120(e)(4) requires that the selection of a remedial action be made by the head of the relevant department (i.e., the DoD component) and the EPA Administrator, or, if unable to reach agreement on the selection of a remedial action, by the EPA Administrator. Section 178.15(b)(4) thus integrates this statutory authority into this proposed rule to avoid duplicative procedures and unnecessary delays. Section 178.15(b)(4) of this rule recognizes that there may be an overlap between EPA's authority under CERCLA for the final selection of a remedial action at an NPL site and the Department of Defense's authority under 10 U.S.C. 172 and 2701 for explosives safety [19] and military munitions. Thus, consistent with Section 10 of E.O. 12580 on Superfund Implementation, the dispute can be raised to OMB. While such a dispute theoretically is possible, the Department of Defense is confident that the dispute resolution process contained in this rule would result in the selection of a response that is fully satisfactory to the EPA Administrator and to the Secretary of the Military Department prior to the OMB stage.

Range response activities will not be suspended during the dispute resolution process absent extraordinary circumstances. If the secretary of a Federal land manager, or his/her designee whose appointment requires the advice and consent of the Senate, provides a written declaration with supporting rationale to the Department Secretary for the responsible DoD component, stating that an immediate suspension of response activities during the full dispute resolution process is needed to prevent substantial environmental harm that would result from the performance of the activity itself, then the responsible DoD component shall immediately suspend such activity, to the extent consistent with the protection of human health from any imminent and substantial danger. The suspension issue (i.e., whether to suspend response actions during the full dispute resolution process) will be raised directly to the Military Service Department Secretary, or his/her designee whose appointment requires the advice and consent of the Senate, consistent with § 178.15(b)(4). The Secretary of the Federal land manager and the Military Service Department Secretary will have 5 calendar days to arrive at a consensus on the suspension issue. If no consensus is reached, then the Federal land manager will have 5 calendar days to raise the suspension issue to OMB and request OMB to decide whether to continue the suspension of the response action. Five days following the submission of the suspension issue to OMB, the Military Service can resume activity unless OMB makes or has made a determination that the response actions should not resume pending resolution of the underlying dispute, or that an additional time period is needed to consider the merits of the arguments over whether the response action should be allowed to resume.

Because of the extensive involvement of the Federal land manager throughout the range rule process, this mechanism should be rarely used, and will typically be based on concerns over endangered species or other issues involving statutory protections. This process is intended as a true emergency measure to assure the Federal land manager that it will be able to protect its lands from substantial environmental damage while the merits of the dispute are fully aired. Because the suspension of an action could result in substantial contract costs to the government and delays in the mitigation of risks to human health and the environment from UXO, the Federal land manager should endeavor to raise its concerns over substantial environmental effects of a proposed

[19] The Department of Defense notes that, under isolated circumstances, other constituents subject to CERCLA could be present in concentrations that constitute an explosives safety hazard. In such case, the Secretary of the Military Department would resolve the explosives safety issues, and the EPA Administrator would resolve the other issues related to the release of those other constituents.

response action at the earliest possible time.

One Federal commentor has suggested that the time limits of this provision be changed from 5 days to 10 days. Additionally, a State commentor has asked if States can suspend response actions during a dispute. The Department of Defense seeks comments on both of these issues.

11. Allocation of Operation and Maintenance Costs Between Federal Agencies

The Department of Defense intends to enter into a memorandum of understanding (MOU) with Federal land managers to establish the general principle that the Department of Defense is responsible for the incremental O&M costs attributable to military munitions (including UXO and its associated constituents) employed by the Department of Defense at ranges that are under the responsibility of another Federal land manager and for which the Department of Defense would be responsible under the proposed rule for the costs of the response, unless otherwise specified by law. Such an MOU would be modified only by mutual agreement of the parties. This MOU would establish a workgroup to review quality controls and the consistency of decisions whether to commence the RA/AR process at former ranges managed by a Federal land manager. The MOU would incorporate the dispute resolution process for allegations that the Department of Defense arbitrarily applied the factors in § 178.6(b) or relied upon inaccurate information.

The Department of Defense and the Federal land manager also would enter into site-specific MOUs to establish the costs for which the Department of Defense would be responsible at that range. The costs and the requirements would be established for a range as part of the response selection process called for under the rule, including the selection of an AR.

12. Future Land Use Issues for Transfers Between Federal Agencies

The Department of Defense and the Federal land managers have agreed to enter into a memorandum of agreement (MOA) to discuss future land use issues. Section 178.16 of this proposed rule generally discusses future land use issues at these Federal properties. The Department of Defense has divided this issue into three topics: Transferring ranges, transferred ranges, and responsibility for additional response actions. For transferring ranges, the Department of Defense will conduct and fund response activities consistent with all reasonably anticipated future land uses that are identified and agreed to between the parties to the land transfer prior to the transfer. Where the transfer of the military range is mandated by statute, executive order, a previously concluded agreement between the Department of Defense and the Federal land manager, or under terms of a withdrawal, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the Federal land manager, under which the Department of Defense used the property, and where future land uses are not identified or response activities are not specified in such statute, order, agreement, or instrument, any dispute will be resolved through utilization of the dispute resolution procedure identified in the range rule. Where the transfer is not legally mandated, disagreement over what the reasonably anticipated future land uses are may result in the transfer of the property to some other party, or no transfer. Technology limitations may restrict current uses or cleanup of the property. Reasonably anticipated future land uses for the property will not necessarily be limited by current technological limitations on the cleanup of UXO on ranges.

For transferred ranges, in the absence of a prior agreement identifying reasonably anticipated future land uses or imposing land use restrictions, the Department of Defense will conduct and fund response activities consistent with all reasonably anticipated future land uses at the time of the range response. Reasonably anticipated future land uses will be decided by the Federal land manager with the concurrence of the Department of Defense. If there is disagreement, the dispute resolution procedure identified in the range rule will be utilized. Technology limitations may restrict current uses or cleanup of the property. Reasonably anticipated future land uses for the property will not necessarily be limited by current technological limitations on the cleanup of UXO on ranges.

Section 178.16 also lists a number of specific circumstances where the Department of Defense will conduct and fund additional response actions at these Federal properties (for example, when the remedy fails or additional UXO is found that creates conditions inconsistent with the established reasonably anticipated land use, the Department of Defense will conduct and fund additional response actions at these Federal properties to achieve consistency with the established reasonably anticipated land use). The Department of Defense seeks comments on the applicability of these future land use concepts to parties other than Federal land managers.

The MOA will also discuss responsibilities for additional response actions should a response previously implemented under the range rule later conflict with a Federal land manager's trust obligations or statutory management responsibilities. Where the Federal land manager makes a determination that the level of response previously implemented pursuant to the range rule is inconsistent with the Federal land manager's trust obligations or statutory responsibilities for management and stewardship of the land and natural resources for the United States and the public, the Federal land manager shall identify to the Department of Defense what further response action is necessary to meet those obligations or responsibilities and shall identify how the OMB decisional factors described in this paragraph are implicated by the proposed additional response action. If the Department of Defense elects not to fund or perform the additional response action so identified, the Federal land manager may invoke the dispute resolution procedure in the range rule. If such a dispute arises, EPA shall be provided notice and an opportunity to participate in discussions with OMB. When OMB resolves a dispute as to whether the Department of Defense or the Federal land manager should fund or perform additional response action identified by a Federal land manager pursuant to this section, OMB shall consider and balance:

(1) The importance of the proposed additional response action in meeting the Federal land manager's obligations or responsibilities.

(2) Any reasonable alternatives by which the Federal land manager could satisfy its obligations and responsibilities, including alternatives that utilize innovative technology or that require no additional response action.

(3) The cost and cost-effectiveness of the proposed additional response action in comparison to the other reasonable alternatives.

(4) The cost of the cleanup to the Federal government as a whole.

(5) The availability or expected availability of appropriated funds at each of the respective agencies to fund or perform the proposed additional response action.

The Department of Defense and the Federal land managers have agreed to include the language of the MOA concerning future land use in the site-

specific agreements under which land is to be transferred from the Department of Defense to a Federal land manager. The Department of Defense seeks comments on the applicability of these future land use concepts to parties other than Federal land managers.

V. Discussion of Other Major Alternatives

A. General

In proposing this rule, the Department of Defense is considering several alternatives to address military munitions on closed, transferred, or transferring ranges. In assessing each of these alternatives, the Department of Defense has sought to identify the relative merits of each statutorily based process in meeting the goals of establishing a single, logical, and comprehensive process that addresses explosives safety, human health, and environmental concerns. In the Department of Defense's view, a single, specific process is necessary to avoid confusion and to ensure that effective response activities are undertaken in a fiscally responsible manner. That process must recognize and consider the unique explosives safety hazards associated with military munitions, and concomitantly with any response activity conducted on closed, transferred, or transferring ranges. The process must ensure that the public and regulators are fully informed and engaged at every stage of the process, including substantial and meaningful public and regulator participation in the response selection and implementation. The process must be accessible, consistent, and lead to informed decision-making. As noted elsewhere in this rulemaking, the Department of Defense's response activities, both on- and off-range, have been variously subject to rules implemented under DERP, CERCLA, RCRA, or a combination. With respect to military munitions, DDESB exercises independent statutory authority over explosives safety. As such, the Department of Defense has identified and continues to consider several alternatives based on each of these statutory authorities.

B. Comprehensive Environmental Response, Compensation, and Liability Act

The Department of Defense also is considering the adequacy of CERCLA to address military munitions on closed, transferred, or transferring ranges. As specified in CERCLA Section 104, CERCLA is triggered by the ''release or substantial threat of a release into the environment'' of a ''hazardous substance'' or of a ''pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare.'' Neither military munitions nor UXO are, as a class, designated as CERCLA hazardous substances. However, the Department of Defense is considering whether UXO should, as a class, be recognized for purposes of this rule as CERCLA pollutants or contaminants. A CERCLA pollutant or contaminant triggers a CERCLA response if an imminent and substantial endangerment to the public health or welfare exists.

The procedural and technical standards for conducting CERCLA response activities are codified at 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan (55 FR 8666, March 8, 1990). The NCP establishes five steps to respond to releases or potential releases of hazardous substances: (1) Identifying releases; (2) conducting a removal action if warranted; (3) conducting a site assessment, and, if warranted, listing the site on the NPL; (4) performing a remedial investigation/feasibility study (RI/FS); and (5) implementing the remedy through remedial design/remedial action (RD/RA).

The first step, release identification, occurs through various means, including: reports of releases; investigations by Federal, State, or local government agencies; land inventories or surveys; or incidental discoveries. All sites where a release is identified should be reported to the National Response Center and/or EPA, and all Federal sites should be listed on the Federal agency hazardous waste compliance docket.

The second step in the CERCLA response process is conducting a removal action, as appropriate. This is not to say that removal actions cannot be undertaken at other points in the process; they can be conducted at any time during a CERCLA response. Removals, as described in 40 CFR 300.415, are actions taken to mitigate immediate threats to human health and the environment. There are three types of removals: (1) Emergency removals where action is required within hours or days; (2) time-critical removals where up to 6 months can elapse before action is necessary; and (3) non-time-critical removals, where more than 6 months can elapse before action is taken. A non-time-critical removal requires the development of an engineering evaluation/cost analysis, as well as more significant public outreach than is required for an emergency or time-critical removal. Removal actions are undertaken at the discretion of the lead agency, and should, to the maximum extent practicable, contribute to the overall remediation of the site. The decision to move from a removal action to a remedial action is also at the discretion of the lead agency (40 CFR 300.415(f)). All removal actions require the development of an action memorandum that describes the action taken and the rationale for that action.

Site assessment, the third step in the CERCLA process, has several stages and is outlined in the NCP at 40 CFR 300.420. First, the lead agency conducts a preliminary assessment (PA), which is a ''desktop'' review of available information about the site and involves the collection of demographic information and information about the environmental setting of the site. Sites not posing a sufficient threat to human health or the environment to warrant a CERCLA response are screened out. The second stage, site inspection (SI), may be required to further evaluate site conditions. The SI is a more detailed investigation of site conditions, usually involving sampling of environmental media. Information from the PA and SI is the basis for the third stage, scoring the site using the hazard ranking system (HRS). The HRS is a model for assessing the site's relative threat to human health and the environment. If a site scores at or above 28.5, it may be placed on the NPL, and an RI/FS will be required.

The fourth phase of the CERCLA remedial process is the RI/FS (40 CFR 300.430). The RI/FS characterizes the site and evaluates various alternatives for remediation of the site. Unlike the SI, the RI involves the collection of sufficiently detailed information to fully characterize site conditions, determine the nature and extent of the contamination, evaluate risks posed by the site, and assess the performance of options for remediation. The FS involves development, screening, and detailed evaluation of each remedial option. Each alternative is evaluated against the following nine criteria:

(1) Overall protection of human health and the environment (including explosives safety and natural resources).

(2) Compliance with ARARs.

(3) Long-term effectiveness and permanence of the remedy.

(4) Reduction of the toxicity, mobility, quantity, or volume of the contaminants present at the site.

(5) Short-term effectiveness of the remedy.

(6) Implementability of the remedy.

(7) Cost of the remedy.

(8) Federal and State acceptance of the selected alternative.

(9) Community (including current property owner) acceptance of the selected alternative.

The RI/FS phase leads to the selection of the remedial option, the development of a proposed plan, and the signing of a record of decision (ROD). Once the ROD is signed, the RI/FS phase is complete.

The fifth step of the CERCLA process, outlined under 40 CFR 300.435, is the RD/RA, where the selected remedy is actually implemented. The RD involves all aspects of designing the remedial action, including development of technical drawings, specifications, operational guidance, and training. The RA involves the actual construction, operation, and monitoring of the remedial action selected to clean up the contamination at the site. Depending upon site conditions, an RA may continue for many years. Upon completion of the RA and demonstration that the site has been remediated to the required levels, the site is deleted from the NPL.

The Department of Defense recognizes the fact that the NCP and E.O. 12580, which implement CERCLA, identify the Department of Defense as the lead agency with respect to releases from its facilities, including those involving military munitions. Thus, while the CERCLA process provides a potentially viable alternative to the proposed rule, the Department of Defense has identified some initial concerns. For example, confusion exists as to the extent of EPA's response authority and the application of State ARARs. While E.O. 12580 delegates to the Department of Defense the authority to conduct these response activities, the Department of Defense is not often directly involved in the national priority listing of these response activities.

The Department of Defense recognizes that CERCLA is a possible and existing alternative to the range rule. The Department of Defense has closely modeled the range rule on the CERCLA process and utilizes CERCLA and DERP, an amendment to CERCLA, as authorities for promulgation of the range rule. However, the range rule has advantages over CERCLA. The range rule focuses exclusively on range issues, unlike CERCLA, and will provide for a consistent response by the Military Services. The range rule is not limited to those materials addressed under CERCLA. Additionally, the range rule will require the Department of Defense to respond to former ranges without a State forcing action under CERCLA or other State authorities.

C. Defense Environmental Restoration Program

DERP was established in 1986 by Section 211 of SARA. DERP is codified at 10 U.S.C. 2701, *et seq.* and establishes the Department of Defense's responsibility and authority to address UXO (which is a subset of military munitions), as well as hazardous substances, pollutants, and contaminants on DoD property. Likewise, DERP establishes funding authority for these response activities. For example, in 1996, Congress appropriated more than $1.4 billion for the Department of Defense's response activities. DERP, therefore, ensures that the obligation to undertake response activities is directly linked with the Department of Defense's authority to undertake these response activities and its authority to fund them. This approach under DERP is not inconsistent with existing statutory, regulatory, and policy pronouncements in CERCLA, the NCP, and E.O. 12580.

The NCP and E.O. 12580 identify the Department of Defense as the lead agency under CERCLA for releases or threatened releases of hazardous substances, pollutants, and contaminants from the Department of Defense's facilities. Consistent with this designation, the Department of Defense has conducted removal or remedial responses at its NPL and non-NPL sites in accordance with the processes set forth in CERCLA and the NCP.

Less clear, however, is the role of explosives safety under DERP. The Department of Defense believes that explosives safety is inextricably linked to any response activity that is undertaken on a military range. Thus, consistent with its statutory mandate under 10 U.S.C. 172, the Department of Defense is proposing to incorporate into this process the additional consideration of explosives safety when addressing military munitions and other constituents on closed, transferred, or transferring ranges. In doing so, the Department of Defense believes that response activities on military ranges will be expedited and will more fully address human health and environmental issues in the practical context of explosives safety.

D. Resource Conservation and Recovery Act

In its proposed military munitions rule (60 FR 56476, November 8, 1995), EPA proposed 40 CFR 261.2(g)(4)(i), which would have identified military munitions on closed and transferred ranges as a statutory solid waste. EPA proposed allowing the Department of Defense's range rule to supersede this provision as long as the range rule was protective of human health and the environment and allowed for public involvement in addressing the cleanup of closed and transferred ranges. In its final military munitions rule (62 FR 6622, February 12, 1997), however, EPA decided to postpone action on this section of the proposed munitions rule to conduct further analyses of comments and to evaluate the Department of Defense's range rule. In the final military munitions rule, EPA indicated that it is prepared to address this issue under Federal environmental laws if the Department of Defense does not promulgate the range rule or if EPA finds that the range rule does not adequately protect human health and the environment.

While the Department of Defense recognizes the RCRA corrective action process as an available alternative to the proposed rule, the Department of Defense has identified several initial concerns that may weigh against use of this alternative. First, the question of whether military munitions that have been used for their intended purpose and that remain on a closed, transferred, or transferring military range are a solid waste has generated much discussion. See *Barcelo* v. *Brown,* 478 F Supp. 646, 668–669 (D. Puerto Rico 1979)[20] and *Connecticut Coastal Fishermen's Assoc.* v. *Remington Arms Co.,* 989 F.2d 1305 (2d. Cir. 1993).[21] Also, the use of munitions has not been characterized as disposal because the ordinary use of munitions includes placement on the land.

In the proposed Military Munitions Rule, EPA concluded that ''the legal arguments supporting the characterization of munitions on closed or transferred ranges as ''solid waste,'' and the legal arguments opposing such a characterization are finely balanced, with the result that EPA has the discretion to select either interpretation pursuant to [RCRA] Section 3004(y).'' EPA did not repeat or reject this discussion in the Final Rule.

Second, the applicability of RCRA's remedial authorities (i.e., Sections 3004 (u) and (v) or Section 3008(h)) requires that a range be collocated at a RCRA-permitted or interim status facility. Some closed, transferred, or transferring ranges may not be located at RCRA-

[20] Copies of this case may be obtained by visiting the DoD range rule administrative record at 910 Clopper Road, Gaithersburg, MD 20878–1399 (telephone 301–258–8753).

[21] Copies of this case may be obtained by visiting the DoD range rule administrative record at 910 Clopper Road, Gaitherburg, MD 20878–1399 (telephone 301–258–8753).

permitted facilities or facilities with interim status, thereby falling outside the scope of RCRA's authorities. The Range Rule would, in contrast, apply to all closed, transferred, or transferring ranges, and would impose a uniform set of requirements and procedures regardless of whether or not the range is at a site subject to RCRA.

Last, as with CERCLA, the Department of Defense is concerned that the RCRA corrective action process, as outlined in the 1990 proposed rule concerning solid waste, does not address explosives safety issues. As noted elsewhere in this proposed rule, explosives safety risks must be minimized during all phases of a response activity involving military munitions.

E. DoD Explosives Safety Standards Promulgated Pursuant to 10 U.S.C. 172

Pursuant to 10 U.S.C. 172, Congress established the DDESB, an independent entity whose charter involves determining appropriate safety standards for dealing with military munitions. While the Department of Defense believes that such standards are of paramount importance in any activity involving military munitions, it recognizes that in the environmental context, other factors must be considered.

The DDESB process for addressing military munitions is set forth in Chapter 12 of DoD 6055.9-STD.[22] Specifically, the process requires that a site-specific evaluation of the explosives safety hazards and an explosives safety plan be developed and submitted to DDESB prior to the undertaking of any response action. In the event that a site-specific evaluation is impracticable, the DDESB process provides for the use of default criteria in addressing the explosive hazards present or suspected. In both instances, the response undertaken is not inconsistent with the anticipated use of the property. Absent from this evaluation and determination is a consideration of the chronic effects of other constituents on the environment.

Application of DDESB standards in response activities would differ from the proposed rule, as the DDESB standards focus primarily on concern for explosives safety. The proposed rule accounts for explosives safety concerns, while also addressing the effects of other constituents on human health and the environment.

[22] See footnote 13 in Section IV.F.1.a. for information on obtaining DoD issuances.

F. Status Quo

As noted in the foregoing discussion of alternatives, the current applicability of all of the foregoing laws and regulations and the lack of any clear direction to the Department of Defense on the appropriate process for addressing military munitions responses is confusing, inefficient, costly, and time-consuming, and may be ineffective. This confusion contributes to public and regulator concern that military munitions are not being addressed adequately. The Department of Defense is committed to sound environmental stewardship in all of its activities. This commitment includes addressing the safety, human health, and environmental effects of military munitions on closed, transferred, and transferring ranges.

In recent years, Congress and the public have demanded that the Department of Defense make available for public use lands that are no longer needed to perform the military's mission. In light of the Department of Defense's downsizing efforts, the BRAC process, and increasing fiscal constraints, more land is being identified for transfer. These transfers are subject to a plethora of environmental laws and regulations, which often involve different, and sometimes inconsistent, processes and decision-makers. To date, the public and regulators have relied on RCRA and CERCLA as the primary environmental laws governing DoD response activities. Additionally, the Department of Defense's response to military munitions is subject to DERP and DDESB criteria. The Department of Defense views this confusion as an impediment to effective, timely, and fiscally responsible responses to military munitions on closed, transferred, and transferring ranges. This rulemaking will identify a single, specific process by which the Department of Defense will execute its responsibilities, while providing for meaningful public and regulator participation throughout all phases of the process.

VI. Administrative Requirements

A. Regulatory Impact Analysis

Under E.O. 12866 (59 FR 51735 (October 4, 1993)), the Department of Defense must determine whether this regulatory action is ''significant'' and therefore subject to review by OMB and to the requirements of this E.O., which include assessing the costs and benefits anticipated as a result of the proposed regulatory action. The E.O. defines ''significant regulatory action'' as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this E.O.

The Department of Defense recognizes that E.O. 12866 contains an exemption for ''military functions''; however, the Department of Defense has decided to prepare a cost/benefit analysis due to the novel legal and policy issues raised by this proposal. The Department of Defense estimates that this proposed rule would result in national incremental costs of $709,000,000, or $47 to $71 million per year over a 10- to 15-year period. This represents a savings from costs that would be anticipated under a RCRA program of $12,984,000,000, or $865 to $1,300 million per year over a 10- to 15-year period. For more information on the cost impacts of this proposed rule and of some alternative approaches, see the *Department of Defense (DoD) Final Report: Range Rule Regulatory Impact Analysis*, July 3, 1996, in the range rule docket.

1. Cost Analysis

Implementing this proposed rule equates to national incremental costs of $709,000,000. These costs are less than those of other alternatives; for example, a RCRA program that is anticipated to cost $12,984,000,000.

2. Benefits Analysis

Benefits include increased protection of the public, increased protection of UXO response workers, a consistent process, increased public involvement in responses, a substantial role for regulatory agencies and for American Indian tribes, and a substantial role for Federal land managers. Implementing a comprehensive approach to respond to closed, transferred, and transferring ranges while ensuring public safety, worker safety, and protection of human health and the environment is essential and would be a beneficial outcome of this proposed rule.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601, *et seq.*, requires Federal agencies to consider ''small entities'' throughout the regulatory process. Section 603 of the Regulatory Flexibility Act requires an initial screening analysis to be performed to determine whether small entities will be adversely affected by the regulation. If affected small entities are identified, regulatory alternatives must be considered to mitigate the potential impacts. Small entities as described in the Regulatory Flexibility Act are only those ''business, organizations and governmental jurisdictions subject to regulation.''

The Department of Defense has determined that this proposal will primarily affect the Department and that few, if any, small entities will be affected.

C. Paperwork Reduction Act

The Paperwork Reduction Act of 1995, 44 U.S.C. 3501, authorizes the Director of OMB to review certain information collection requests by Federal agencies. The recordkeeping and reporting requirements of this proposed rule do not constitute a ''collection of information'' as defined in 44 U.S.C. 3502(3) of the Paperwork Reduction Act of 1995.

D. Environmental Justice

On February 11, 1994, President Clinton issued E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This E.O. requires Federal agencies to identify and address disproportionately high and adverse human health and environmental effects of Federal programs, policies, and activities on minority and low-income populations.

This rulemaking effort will incorporate environmental justice concerns in promoting partnerships with all the public and government agencies and will carefully consider where and how any public availability sessions will be offered. The Department of Defense is soliciting comment and input from all public entities and government agencies, including members of the environmental justice community and members of the regulated community.

This proposed rule is intended to reduce risks from military munitions. The rule involves not one site, but will affect property nationwide. Because of the locations of some of this property, in the implementation of the rule the potential exists for impacts to minority or low-income communities. The rule itself, however, is not expected to cause any disproportionate impacts to minority or low-income communities versus affluent or nonminority communities.

E. Unfunded Mandates

Title II of the Unfunded Mandates Report Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of the UMRA, the Department of Defense generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year.

The Department of Defense has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, this proposed rule is not subject to the requirements of Section 202 of the UMRA.

VII. References/Docket

The regulatory docket for this proposed rule contains a number of background materials. To obtain a list of these background materials, contact the toll-free DoD range rule information request line at (888) 541–1081 (voice), (800) 870–6547 (fax), or (800) 870–6557 for the hearing-impaired.

Accordingly, 32 CFR part 178 is proposed to be added to read as follows:

PART 178—CLOSED, TRANSFERRED, AND TRANSFERRING RANGES CONTAINING MILITARY MUNITIONS

Sec.

178.1 Purpose and objectives.
178.2 Scope.
178.3 Applicability.
178.4 Definitions.
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178.7 Range assessment/accelerated response.
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178.11 Recurring reviews.
178.12 Ending the range response process.
178.13 Information repository and the administrative record.
178.14 Participation of and concurrence role for Federal and State regulatory agencies, American Indian tribes, and Federal land managers.
178.15 Dispute resolution.
178.16 Future land use for transfers within the Federal government.

Authority: 10 U.S.C. 2701 *et seq.*; 10 U.S.C. 172; 42 U.S.C. 9601, *et seq.*; and E.O. 12580, 3 CFR, 1987 Comp., p. 193.

§ 178.1 Purpose and objectives.

(a) This part establishes the procedures for evaluating and responding to explosives safety, human health, and environmental risks on closed, transferred, and transferring military ranges and for providing opportunities for full and active participation by Federal, State, and local agencies; American Indian tribes; and the public in the evaluation and responses conducted at those military ranges.

(b) This part implements the authorities and responsibilities of the Department of Defense (DoD) under 10 U.S.C. 2701 *et seq.*, the Defense Environmental Restoration Program; 10 U.S.C. 172, Ammunition Storage Board; 42 U.S.C. 9601 *et seq.*, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended; and Executive Order 12580, Superfund Implementation, 59 FR 2923 (January 23, 1987), 3 CFR, 1987 Comp., p. 193, as amended. When appropriate, it may also be used in conjunction with other authorities governing effects to land or water.

§ 178.2 Scope.

(a) This part applies to closed, transferred, and transferring military ranges located in the United States, Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands, and which are or were owned by, leased to, or otherwise possessed or used by the United States where military munitions have been used in training or research, development, testing, and evaluation (RDT&E) by the Department of Defense or an agent of the Department of Defense in furtherance of the national defense or security.

(b) This part does not apply to:

(1) Active and inactive ranges.

(2) Any closed, transferred, or transferring range that, upon [the effective date of the final rule], was identified and included in an interagency agreement for a National Priorities List (NPL) site, or which is subject to response activities pursuant to any specific statutory authority or pursuant to any agreement that addresses military ranges that has taken

effect prior to [the effective date of the final rule]. Should, however, any aspects of this part be useful in making a given response more efficient, effective, or protective, then nothing in this part shall prohibit their application upon mutual consent of the parties. In cases where unexploded ordnance (UXO) investigations or response actions are underway on closed, transferred, or transferring ranges at the time of [the effective date of the final rule], this part, this part will not apply unless mutually agreed to by the parties to the interagency or Federal facility agreement.

(3) Airspace designated as a military operation area or military training route (MTR), or their underlying water or land areas where military munitions have not been used.

(4) Properties that are historic battlefields.

(5) Sites where military munitions or explosives are destroyed as part of a munitions or explosives emergency response as defined under 40 CFR 260.10 and subject to the provisions of 40 CFR 261 through 272 (inclusive).

(6) Ranges located outside the United States, Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands.

§ 178.3 Applicability.

This part applies to the Office of the Secretary of Defense, the Military Departments (including the Coast Guard when it is operating as a Military Service in the Department of the Navy), the Chairman of the Joint Chiefs of Staff, the Unified Combatant Commands, the Defense Agencies, the DoD Field Activities, and the National Guard Bureau (NGB) (hereafter referred to collectively as ''DoD components''). For purposes of this part, the Department of War and the Department of the Navy as they existed prior to the creation of the Department of Defense are also considered DoD components.

§ 178.4 Definitions.

When used in this part, the following terms have the meanings given as shown:

(a) *Accelerated responses (ARs).* Any readily available, generally used, reliable, and easily implemented methods of addressing the risk posed by military munitions, unexploded ordnance, or other constituents at military ranges. ARs may be fully protective in and of themselves.

(b) *Active range.* A military range that is currently in service and is being regularly used for range activities.

(c) *American Indian tribe.* For purposes of this part, the term American Indian tribe means Native American tribes and Native Alaskan villages that:

(1) Are federally recognized as an Indian tribe or a Native Alaskan village by the Secretary of the Department of Interior, in accordance with 26 CFR 83.5;

(2) Have a tribal governing body that is currently performing governmental functions to promote the health, safety, and welfare of the affected population or to protect the environment within a defined geographical area, and;

(3) Are the property owner, as defined in paragraph (l) of this section, of any portion of a closed, transferred, or transferring range at which a response is ongoing or contemplated.

(d) *Closed range.* A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a DoD component.

(e) *Federal land manager.* Federal agencies having or clearly anticipated to receive jurisdiction, custody, or control over the property.

(f) *Inactive range.* A military range that is not currently being used, but that is still under military control and is considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

(g) *Military munitions.* All ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include nonnuclear components of nuclear devices, managed under DOE's nuclear weapons program, after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

(h) *Military range.* A designated land or water area set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas. The definition of a military range does not include airspace, or water, or land areas underlying airspace used for training, testing, or research and development where military munitions have not been used.

(i) *Operation and maintenance (O&M).* O&M means measures that are required to maintain the effectiveness of response actions. O&M measures are initiated after the response action has achieved the goal in the decision document and is determined to be ''fully operational.''

(j) *Other constituents.* Other constituents are potentially hazardous chemicals that are located on or originate from closed, transferred, or transferring ranges and are released from military munitions or UXO, or resulted from other activities on military ranges. Other Constituents may be subject to other statutory authorities, including, but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601, *et seq.*) and the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901, *et seq.*).

(k) *Project team.* The responsible DoD component, its designated representatives, any Federal land manager with jurisdiction, custody, or control for all or part of the range, and its designated representatives. The designated representatives provide the working-level direction for scoping the response action, preparing planning documents, conducting investigations and studies, and preparing reports.

(l) *Property owner.* A non-Federal entity that owns a piece of property, or a Native American tribe or Native Alaskan village that owns a piece of property or land, held in trust by the United States for that tribe or village or its individual tribal or village members, that is a closed, transferred, or transferring military range.

(m) *Transferred range.* A military range that is no longer under military

control and has been leased, transferred, or returned to another entity, including Federal entities. This includes a military range that is no longer under military control but was used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the Federal land manager.

(n) *Transferring range.* A military range that is proposed to be leased, transferred, or returned from the Department of Defense to another entity, including Federal entities. This includes a military range that is used under the terms of a withdrawal, executive order, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the Federal land manager. An active range will not be considered a ''transferring range'' until the transfer is imminent.

(o) *Unexploded ordnance.* Military munitions that have been primed, fuzed, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

§ 178.5 Responsibilities.

(a) The DoD component responsible for the military munitions or other constituents present at a closed, transferred, or transferring military range, or another DoD component designated by the Secretary of Defense shall exercise the responsibilities set forth in this part. This entity shall be referred to in this part as the ''responsible DoD component'' or the ''DoD component responsible for'' a range.

(b) In the case of closed, transferred, or transferring ranges that are owned, leased, or otherwise possessed by a State National Guard and are covered by this part, the NGB shall be the responsible DoD component.

(c) If the closed, transferred, or transferring military range includes property under the jurisdiction, custody, or control of a Federal land manager, the responsible DoD component must establish a project team that will include the Federal land manager. The project team will exercise the responsibilities of the responsible DoD component in the working-level development and management of the range response process at that range. Where a Federal agency has been proposed to receive jurisdiction, custody, or control of a former range but the agency is not yet a Federal land manager as defined in this part, the agency may sit on the project team for informational purposes only.

(d) The Department of Defense recognizes that other Federal agencies listed in 40 CFR 300.175 have duties established by statute, executive order, or presidential directive that may apply to or be impacted by response actions conducted under the regulations set forth in this part. These agencies may be called upon by the responsible DoD component or other Federal agency during response planning and implementation to provide assistance in their respective areas of authority or expertise, as described in 40 CFR 300.175, consistent with the agencies' capabilities and authorities.

§ 178.6 Identification of closed, transferred, and transferring ranges.

(a) Within 18 months of [the effective date of the final rule], each DoD component shall develop a list of all known closed, transferred, and transferring ranges subject to this part and controlled at any time by that DoD component, and shall submit that list to a DoD component designated by the Secretary of Defense for use in developing the central inventory database.

(1) The information for each military range in the inventory database shall include, at a minimum:

(i) A unique identifier for the range.

(ii) The current status of the range (i.e., closed, transferred, transferring).

(iii) The name, address, and telephone number of a point of contact at the responsible DoD component.

(iv) An appropriate record showing the location, boundaries, and areal extent of the range including all counties, independent cities and towns in which the range is located, as well as all states in which that range is located.

(v) Known entities, other than a DoD component, with current ownership interest or control of the land or its resources.

(vi) Any deed restrictions currently in place that might affect the potential for exposure to military munitions, UXO, or other constituents present at the range.

(2) The inventory database shall be updated on a periodic basis (at least annually) to reflect new information that has become available.

(b) Each military range included in the inventory database will be assigned a relative priority for range assessment/accelerated response (RA/AR) activities based on the overall conditions at the range. When assigned, this priority will be included in the record for each military range in the inventory database. The Department of Defense will consider factors relating to safety and environmental hazard potential, such as:

(1) Whether access to a site can be controlled, and the population is potentially at risk.

(2) The potential for direct human contact and evidence of people entering into the range area.

(3) Whether a response action has been or is being taken at that range under the Formerly Used Defense Sites (FUDS) program or other environmental restoration programs.

(4) Planned or mandated dates for transfer of the range from DoD control.

(5) Documented incidents involving UXO or off-range releases of other constituents from the range.

(6) The potential for drinking water contamination.

(7) The potential for destruction of sensitive ecosystems.

(8) The potential for damages to natural resources.

(9) The potential for releases to the air.

(10) The degree of public interest in the range.

(11) The degree of Federal land manager interest in the range.

(12) The degree of State or Federal regulator or American Indian tribal interest in the range.

(c) This paragraph describes Federal, State, and local government; American Indian tribe; and public involvement with the inventory database.

(1) Upon the designation of the responsible DoD component, that DoD component shall work with the community to provide information concerning conditions at the range, response activities, and shall respond to inquiries. The responsible DoD component shall notify, at a minimum, immediately affected individuals; State, local, and tribal officials; and, when appropriate, civil defense or emergency management agencies.

(2) Federal, State, and local officials; members of Native American tribes and Native Alaskan villages; and the public possessing detailed information on areas believed to be military ranges are encouraged to submit that information in writing to the Office of the Deputy Under Secretary of Defense (Environmental Security, 3000 Defense Pentagon, Washington, DC 20301–3000). If, based on the Department of Defense's evaluation of that information, the area is identified as a military range subject to this part, it will be included in the inventory database.

§ 178.7 Range assessment/accelerated response.

(a) *Purpose.* The purpose of the RA/AR is to promptly identify and respond

to risks posed by military munitions, UXO, and other constituents at military ranges subject to this part and to distinguish between military ranges posing little or no explosives safety, human health, or environmental risk and military ranges that pose a greater risk. The RA/AR shall use readily available information or limited data collection efforts to determine if additional investigation is required, or if implementation of an AR is warranted.

(b) *Range assessment.* As used in this part, the range assessment:

(1) Is a limited-scope investigation designed to assess the risk posed by any military munitions, UXO, or other constituents found at the range.

(2) Shall, to the extent feasible, rely on available information gathered through a combination of file searches and desktop information collection and analysis. If warranted, additional data may be collected by such methods as visual inspection of the range or focused sampling of environmental media in an effort to develop an improved understanding of the conditions at the range. Such on-range activities require development of a work plan describing the objectives and plan for conducting any such activities.

(i) Prior to any activities that require entry onto the range, an explosives safety plan must be approved by the DoD Explosives Safety Board (DDESB) or other explosives safety organization designated by DDESB. The work plan implemented by the responsible DoD component must provide for an appropriate balance between the risks to the safety of the investigators and the risk to the community and environment. The draft work plan will be coordinated with and comment sought from the appropriate Federal, State, and local governments and American Indian tribe. The final work plan will be subject to regulatory concurrence.

(ii) Proposed decisions that recommend limiting the entry into specific areas of the range based on munitions safety hazards will be provided to stakeholders, together with a description of the criteria and rationale used to develop such recommendations. In response to such a proposed decision, the responsible DoD component must:

(A) Seek reversal or modifications of the proposed decision, or

(B) Develop an alternative explosives safety plan that meets the conditions of the proposed or modified decision.

(iii) Prior to entry onto a transferred range, written permission must be obtained from the current Federal land manager or property owner.

(3) Shall initiate range delineation procedures that will adequately define discrete areas within a range that pose varying explosives safety hazards and environmental risks.

(4) Should include collection of the following information:

(i) Information about the types, quantities, constituents, and other factors related to the military munitions employed on the range.

(ii) Information on previous range clearance operations or reported incidents involving military munitions or UXO on the range.

(iii) Safety issues related to use of military munitions on the range.

(iv) The identity, concentration, and human health or environmental effects of other constituents known or believed to be present on the range.

(v) The type(s) of any targets that may have been used on the range.

(vi) Other past and present uses of the range.

(vii) Any prior agreements identifying reasonably anticipated future land uses or imposing land use restrictions, and, in the absence of these, current and reasonably anticipated future land uses.

(viii) The environmental setting of the range, including:

(A) The location and identity of receptors (e.g., human, threatened and endangered species) potentially impacted by the range.

(B) Specific exposure routes of concern.

(C) Local hydrologic and hydrogeologic conditions (which include groundwater).

(D) Soils and geology.

(E) Terrain.

(F) Climate.

(G) Biological resources.

(H) Cultural resources.

(c) *Accelerated response.* (1) Examples of ARs include, but are not limited to:

(i) Conducting source removals or surface sweeps for UXO.

(ii) Posting signs warning of the dangers associated with the range.

(iii) Erecting fences or other similar physical means to control access.

(iv) Implementing erosion controls (e.g., silt fences).

(v) Suspending incompatible land uses (where DoD has the ability to do so).

(vi) Implementing community education and awareness programs.

(vii) Implementing a monitoring program.

(viii) Other appropriate engineering, institutional, or exposure controls.

(2) *Selection of an AR.* AR alternatives shall be evaluated using qualitative (or if available, quantitative) information to assess how the AR would address the following nine criteria, which shall have the same meanings as set forth in the National Contingency Plan (NCP):

(i) Overall protection of human health and the environment (including explosives safety and natural resources).

(A) All AR alternatives must minimize explosives safety risks.

(B) If the AR requires entry onto the range, an explosives safety plan must be approved by DDESB or other explosives safety organization designated by DDESB.

(ii) Compliance with applicable or relevant and appropriate requirements (ARARs) established under Federal and State law, to the extent practicable given the exigencies of the situation.

(iii) Long-term effectiveness and permanence.

(iv) Reduction in the toxicity, mobility, quantity, or volume of other constituents present at the range.

(v) Short-term effectiveness.

(vi) Implementability.

(vii) Cost.

(viii) Acceptability to Federal and State regulatory agencies, or agencies with jurisdiction over affected resources.

(ix) Community (including current property owner) acceptance.

(d) *Evaluation of RA/AR process results.* (1) The RA/AR process continues until:

(i) Enough information has been gathered to make an informed risk management decision, or it is determined that the effort necessary to collect that information is beyond the scope of the RA.

(ii) Identified risks have been addressed through implementation of an AR, or it is determined that ARs are unable to address the identified risk.

(2) An RA/AR report shall be prepared to document the findings of all assessment activities and the reasons for and effectiveness of each AR implemented.

(3) The RA/AR report shall make a recommendation as to appropriate action, including one or a combination of the following recommendations:

(i) Issue a determination of no further action (residual munitions risk is below the threshold of concern and no continued protective measures or institutional controls are needed).

(ii) Conduct recurring reviews of the ARs implemented.

(iii) Conduct a range evaluation (RE).

(iv) Issue a technical impracticability (TI) determination.

(v) Other recommendations, as appropriate.

(e) *Public and government agency involvement.* This section describes

Federal, State, and local government, American Indian tribal, and public involvement with the RA/AR process.

(1) Before beginning the RA/AR, the responsible DoD component shall send a written notice to the appropriate Federal, State, and local governments and American Indian tribe, informing them that these activities will be starting. This notice will also request that these governments designate a point of contact within their organization and identify that point of contact to the responsible project team. The responsible DoD component shall also send a copy of this notice to the current property owner.

(2) All validated information about conditions at the military range, the documented risks posed by the site, and any ARs to address those risks shall be included in the administrative record and be made available to Federal, State, and local governments; American Indian tribes; and the public through the information repository.

(3) For all ARs where implementation of an on-site action is expected to take more than one hundred twenty (120) days to complete, within that period the responsible DoD component shall conduct interviews with local officials, community residents, public interest groups, or other interested or affected parties, as appropriate, to solicit their concerns, information needs, and how or when they would like to be involved in the range response process. The responsible DoD component shall also prepare a formal public involvement plan (PIP) based on the community interviews or other relevant information, specifying the public involvement activities that are needed during the response.

(4) The RA report shall be subject to a forty-five (45)-day review and comment period prior to implementation of the AR. However, if the physical construction associated with an interim AR, including implementation of site access control measures, is reasonably expected to be completed within 120 days of the commencement of the AR (i.e., completion of the RA), the opportunity for review and comment may be provided during or when the AR has been implemented.

(5) As part of involving Federal, State, and local governments; American Indian tribes; and the public in the range response, the responsible DoD component shall make use of existing Restoration Advisory Boards (RABs) to involve these parties throughout the process, or other forums, such as an Extended Project Team (EPT), as the specifics of the site or interest of the community indicate.

(6) Range responses conducted under this part shall include a technology education program which provides an opportunity for members of the public, American Indian tribes, and regulators to receive a general explanation of available UXO detection and remediation technologies, their capabilities, and their limitations. This program will be provided by the responsible DoD component beginning in the RA/AR phase. The program shall consist of a presentation to the RAB or EPT which generally explains the UXO detection and removal technologies available to respond to former military ranges. Additional presentations may be made as a follow-up to the initial presentation if significant technology advancements have been made.

(7) Except as provided in paragraph (e)(4) of this section, once the RA/AR report is complete, the responsible DoD component shall:

(i) Send a copy of the draft RA/AR report to the appropriate Federal and State regulators and American Indian tribe, seeking their review and comment.

(ii) Publish a notice of availability and brief description of the RA/AR report in a major local newspaper of general circulation announcing a forty-five (45)-day period for submission of written comments.

(iii) Hold a public meeting or availability session, if requested.

(iv) Develop written responses to significant comments received during the comment period and prepare a final RA/AR report.

(8) Except as provided in paragraph (e)(4) of this section, the responsible DoD component shall then prepare a formal decision document specifying the action(s) to be taken.

(i) This decision document and all supporting information are part of the administrative record.

(ii) Copies of the decision document will be sent to the appropriate Federal, State, and local governments; American Indian tribe; and current property owner.

(iii) The responsible DoD component shall seek concurrence on the decision document in accordance with § 178.14(e).

§ 178.8 Range evaluation.

(a) *Purpose.* The purpose of the RE is to conduct a detailed investigation designed to fully characterize the risks posed by any military munitions, UXO, or other constituents known or believed to be present at the military range. The purpose of this investigation is to determine if the AR measures are adequate or whether a site-specific response is necessary. The RE will typically require the collection and analysis of quantitative information not otherwise available, in addition to the data assembled for the RA/AR.

(b) *The RE plan.* An RE plan shall be prepared providing information as to the objectives established for the RE, the rationale for those objectives, and how those objectives will be achieved. As necessary, the RE plan shall include any sampling and analysis protocols, explosives safety requirements, data analysis procedures, or studies required to complete the RE.

(1) Prior to any activities that require entry onto the range, a site safety plan must be approved by the DDESB or other explosives safety organization designated by DDESB.

(2) Prior to entry onto a transferred range, written permission must be obtained from the current Federal land manager or property owner.

(c) Information collected during the RE should include:

(1) Information about the types, quantities, constituents, and other factors related to the military munitions employed on the range.

(2) Information on previous range clearance operations or reported incidents involving military munitions or UXO on the range.

(3) Safety issues related to use of military munitions on the range.

(4) The identity, concentration, and human health or environmental effects of other constituents known or believed to be present on the range.

(5) Any prior agreements identifying reasonably anticipated future land uses or imposing land use restrictions, and, in the absence of these, current and reasonably anticipated future land uses.

(6) The environmental setting of the range, including:

(i) The location and identity of receptors (e.g., human, threatened and endangered species) potentially impacted by the range.

(ii) Specific exposure routes of concern.

(iii) Local hydrologic and hydrogeologic conditions (including groundwater).

(iv) Soils and geology.

(v) Terrain.

(vi) Climate.

(vii) Biological resources.

(viii) Cultural resources.

(d) *Range risk assessment.* (1) Information obtained from the RE will be used to conduct a detailed, quantitative assessment of the risks posed by any military munitions, UXO, or other constituents identified at the

military range to provide an estimate of the overall risk posed by the range, and to serve as a tool for assessing the effectiveness of a given response at addressing those risks. The range risk assessment will evaluate explosives safety, human health, and environmental risks.

(2) The range risk assessment shall consider:

(i) Identification of the source of the risk (e.g., identification of the specific munitions or constituents).

(ii) The likelihood of exposure.

(iii) The effects of exposure.

(e) *RE report.* (1) The findings and conclusions of the RE will be presented in a formal RE report. The RE report shall make a recommendation as to appropriate action, including one or a combination of the following recommendations:

(i) The AR was adequate to address the identified risks.

(ii) Conduct recurring reviews.

(iii) Issue a TI determination.

(iv) Conduct a site-specific response.

(v) Issue a determination of no further action.

(vi) Other recommendations, as appropriate.

(2) If the recommendation is to initiate a site-specific response, a letter report may be used to summarize the findings of the RE, identify the risks requiring a site-specific response, and the anticipated scope and start of the site-specific response evaluation (SSRE). No formal RE report would be prepared, and instead the SSRE report would incorporate the findings and conclusions of the RE.

(f) *Public and government agency involvement.* This paragraph describes Federal, State, and local government; American Indian tribe; and public involvement with the RE process.

(1) Before beginning the RE, the responsible DoD component shall send a written notice to the appropriate Federal, State, and local governments and American Indian tribe informing them that these activities will be starting. This notice will also request that these governments designate a point of contact within their organization and identify that point of contact to the responsible DoD component. The responsible DoD component shall also send a copy of this written notice to the current property owner.

(2) The RE plan, all validated information about conditions at the military range, and any documented risks posed by the site shall be included in the administrative record and be made available to Federal, State, and local governments; American Indian tribes; and the public through the information repository.

(3) As appropriate, the responsible DoD component shall hold a public availability session to provide information on the status of the RE when appropriate.

(4) If a letter report in accordance with paragraph (e)(2) of this section is prepared, then the responsible DoD component shall:

(i) Prepare a formal decision document that summarizes findings of the RE, identifies the risks requiring a site-specific response, and describes the anticipated scope and start date of the SSRE.

(ii) Make the decision document available to the public.

(iii) Send a copy of the decision document to the appropriate Federal, State, and local governments and American Indian tribe. A copy shall also be sent to the current property owner.

(iv) Seek concurrence on the decision document in accordance with § 178.14(e).

(5) If a formal RE report is prepared, then, upon completion of the draft RE report, the responsible DoD component shall:

(i) Send a copy of the draft RE report to the appropriate Federal and State regulators and American Indian tribe, seeking their review and comment.

(ii) Publish a Notice of Availability and a brief description of the RE report in a major local newspaper of general circulation and announce a forty-five (45)-day period for submission of written comments.

(iii) Hold a public meeting or availability session, if requested.

(iv) Develop written responses to significant comments received during the comment period and prepare a final RE report.

(6) After an RE report is finalized, the responsible DoD component shall prepare a formal decision document recommending the action(s) to be taken.

(i) This decision document and all its supporting information are part of the administrative record.

(ii) Copies of the decision document and final report will be sent to the appropriate Federal, State, and local governments; American Indian tribe; and current property owners.

(iii) The responsible DoD component shall seek concurrence on the decision document in accordance with § 178.14(e).

§ 178.9 Site-specific response evaluation.

(a) *Purpose.* An SSRE examines response alternatives that address the remaining risks identified by the RE that have not been, or cannot be, effectively addressed by ARs. SSREs are highly focused investigations of response alternatives that address risks based upon reasonably anticipated future land use.

(b) *SSRE plan.* An SSRE plan that provides the following information shall be prepared: the objectives established for the SSRE, the rationale for those objectives, and how those objectives will be achieved. As necessary, the SSRE plan shall include any sampling and analysis protocols, explosives safety requirements, data analysis procedures, or studies required to complete the SSRE.

(1) Prior to any activities that require entry onto the range, an explosives safety plan must be approved by the DDESB or other explosives safety organization designated by DDESB.

(2) Prior to entry onto a transferred range, written permission must be obtained from the current Federal land manager or property owner.

(c) *Development of site-specific response alternatives.* Site-specific response alternatives shall be initially developed and screened in the following manner:

(1) Identify a preliminary list of objectives for the response.

(2) Identify general categories of response actions that will meet or exceed the preliminary objectives.

(3) Determine the scope of the response.

(4) Identify and screen specific technologies and, within a class of technologies, identify options for the actual treatment process.

(5) Identify the alternatives or combinations of alternatives for a more detailed evaluation.

(6) Conduct bench or pilot-scale studies as necessary.

(d) *Analysis of site-specific response alternatives.* The following evaluation criteria shall be interpreted and have the same meanings as set forth in the NCP and shall be interpreted in the same manner as in the preamble to the NCP and any relevant policy or guidance issued by EPA. The response alternatives developed in paragraph (c) of this section shall be further analyzed with respect to the following nine evaluation criteria:

(1) Protection of human health and the environment (including explosives safety and natural resources).

(2) Compliance with Federal and State ARARs, or appropriate use of waivers from those requirements.

(3) Long-term effectiveness. Assess the residual risk posed by military munitions (including UXO) or other constituents that will remain at the range following the completion of the

response action, and consider the reliability and adequacy of the action in providing a long-term or permanent solution to the hazards posed at the range. The long-term effectiveness evaluation shall also include an assessment of any potential long-term liabilities associated with the response action.

(4) Reduction in toxicity, mobility, quantity, or volume of other constituents present at the range.

(5) Short-term effectiveness. Address the risks or impacts of the alternative from the start of the action through to the time when the response objectives are achieved.

(6) Implementability. Assess both the technical and administrative feasibility of implementing each alternative. Included in this assessment are:

(i) Consideration of the availability of the necessary resources to implement the alternative.

(ii) Assessment of the reliability of the alternative.

(iii) Assessment of whether the action will impede other responses at the range.

(iv) Requirements for interaction with other Federal, State, or local governments or American Indian tribes.

(v) Availability of on- and off-range treatment and disposal capacity.

(7) Cost. Assess direct and indirect capital costs; operating and maintenance costs; and long-term liability costs associated with the alternative.

(8) Acceptability of each alternative to Federal and State regulatory agencies or agencies with jurisdiction over affected resources.

(9) Community acceptance (community and/or property owner acceptance).

(e) *Site-specific response evaluation report.* (1) The findings and conclusions of the SSRE shall be presented in an SSRE report. If only a letter report is prepared for an RE, the findings and conclusions of the RE shall be documented in the SSRE report. The SSRE report shall make a recommendation of appropriate action, including one or a combination of the following recommendations:

(i) Implement the recommended response alternative(s).

(ii) Conduct recurring reviews.

(iii) Issue a TI determination.

(2) [Reserved]

(f) The SSRE report shall document the selection of alternative(s) by:

(1) Identifying the alternative(s) to be implemented.

(2) Discussing the goals of the response (e.g., the risk to be addressed).

(3) Explaining how the response is expected to achieve the goals.

(4) Providing information as to how the alternative(s):

(i) Provides for explosives safety.

(ii) Protects human health and the environment.

(iii) Addresses the concerns of the public and government agencies that were received in the written comments.

(iv) Eliminates, reduces, or controls the risks posed by military munitions, UXO, or other constituents present at the range.

(v) Meets ARARs, or identifies those requirements that will not be met, and provides the justification for the waivers, and any conditions imposed.

(vi) Discusses whether military munitions, UXO, or other constituents will remain at the range following the completion of the response, and if so, describes the specific mechanisms used to ensure that land use remains compatible with any residual hazard, and designates the frequency of recurring reviews.

(g) *Public and government agency involvement.* This paragraph describes Federal, State, and local government; American Indian tribal; and public involvement in the RE/SSRE process.

(1) The RE and SSRE Plans, all validated information about conditions at the military range, any documented risks posed by the site, and any validated information generated during the SSRE shall be included in the administrative record and be made available to the appropriate Federal, State, and local governments; American Indian tribe; and the public through the information repository.

(2) As appropriate, the responsible DoD component will hold public availability sessions to provide information on the status of the RE and SSRE.

(3) Once the draft SSRE report is complete, the responsible DoD component shall:

(i) Send a copy of the draft SSRE report to the appropriate Federal and State regulators and American Indian tribe, seeking their review and comment.

(ii) Publish a notice of availability and brief description of the SSRE report in a major local newspaper of general circulation announcing a forty-five (45)-day period for submission of written comments.

(iii) If requested, hold a public meeting or availability session.

(iv) Develop written responses to significant comments received during the comment period and prepare a final SSRE report.

(4) The responsible DoD component shall then prepare a formal decision document specifying the action(s) to be taken.

(i) This decision document and all supporting information are part of the administrative record.

(ii) Copies of the final SSRE report and decision document will be provided to the appropriate Federal, State, and local governments and American Indian tribe. In the case of a military range on privately owned lands, a copy of these documents shall also be sent to the current property owner.

(iii) The responsible DoD component shall seek concurrence on the decision document in accordance with § 178.14(e).

§ 178.10 Site-specific response implementation.

(a) *Implementation plan.* A response implementation plan shall be prepared describing the objectives established for the response, the rationale for those objectives, and how those objectives will be achieved. As necessary, the document shall also detail the design, construction, operation, maintenance, monitoring, and decommissioning of the response alternative, and any operational guidance and training of personnel involved in implementing the response.

(1) Prior to any activities that require entry onto a range, an explosives safety plan must be approved by the DDESB.

(2) Prior to entry onto a transferred range, written permission must be obtained from the current Federal land manager or property owner.

(b) *Response implementation.* Implementation of the response requires the following:

(1) Actual construction and initial operation of the response, including conducting necessary quality assurance inspections and preparing any necessary periodic reports on progress in executing the response.

(2) Once the response is fully operational, monitoring the response to determine its effectiveness.

(3) Operation until all response objectives are achieved.

(c) *Public and government agency involvement.* This paragraph describes Federal, State, and local government; American Indian tribal; and public involvement in the process of implementing the site-specific response.

(1) All validated information about conditions at the military range, the documented risks posed by the site, and the site-specific response to address those risks shall be included in the administrative record and be made available to Federal, State, and local governments; American Indian tribes; and the public through the information repository.

(2) As appropriate, the responsible DoD component will hold public availability sessions to provide information on the status of the response.

(3) If requested, the responsible DoD component shall provide periodic updates on the status of the response to the appropriate Federal, State, and local governments and American Indian tribe.

(4) A periodic update on the status of the response shall be sent to the current property owner.

§ 178.11 Recurring reviews.

(a) *Purpose.* The purpose of recurring reviews is to determine if the responses taken continue to minimize explosives safety risks and protect human health and the environment, and to provide an opportunity for assessing new technology. The scope of the review will depend upon the response objectives and the specific responses implemented. The review will evaluate the changes in physical conditions at the range, changes in public accessibility, applicability of new UXO technology or other new technology that will overcome a previous TI determination, and continued effectiveness of the response.

(b) *Conduct of recurring reviews.* Recurring reviews shall be conducted for ARs, any conditions imposed as part of a TI determination, and site-specific responses. Sites with a determination of no further action are not subject to recurring reviews.

(c) *Frequency of recurring reviews.* (1) Recurring Reviews shall be conducted starting in the third year following the completion of the response.

(2) Subsequent reviews may, as needed, be repeated in the seventh year and at five-year intervals thereafter, for as long as needed.

(3) The review cycle may be set on a different or more frequent schedule (e.g., years 2, 5, 9, 14), as necessary.

(d) *Documenting recurring review findings.* (1) At each recurring review, the review procedures and the evaluation criteria used to assess the effectiveness of the response will be documented in a recurring review report.

(2) The recurring review report will provide a discussion of the findings, stating whether or not the response continues to effectively address the risk at the range, and if any new problems have been discovered in the period since the last review, such as changes in public accessibility (due, for example, to changes in adjacent land uses).

(3) If the response failed to remain effective, or a new problem is discovered, then the responsible DoD component will document the action(s) which will be taken to address that problem and the schedule for the action. If the response was inadequate, then the response process starts again at the RA/AR phase.

(e) *Public and government agency involvement.* This paragraph describes Federal, State, and local government; American Indian tribal; and public involvement in the recurring review process.

(1) The responsible DoD component shall:

(i) Send a copy of the draft recurring review report to the appropriate Federal and State regulators and American Indian tribe, seeking their review and comment.

(ii) Publish a notice of whether the response remains effective or not in a major local newspaper of general circulation.

(iii) Hold a public availability session or meeting, if requested.

(2) The responsible DoD component shall then prepare a formal decision document specifying the actions(s) to be taken.

(i) This decision document and all supporting information are part of the administrative record.

(ii) Copies of the decision document will be provided to the appropriate Federal, State, and local governments and American Indian tribe. In the case of a military range on privately owned land, a copy of this document shall also be sent to the current property owner.

(iii) The responsible DoD component shall seek concurrence on the decision document in accordance with § 178.14(e).

§ 178.12 Ending the range response process.

(a) Following completion of an appropriate number of recurring reviews to demonstrate that the range poses no significant risk to public health or the environment, and commensurate with the originally agreed upon use of the property, the responsible DoD component may administratively close out and end the range response process subject to the following requirements:

(1) Demonstration that any military munitions (including UXO) or other constituents at the military range pose minimal risks.

(2) The specific response objectives have been achieved and all related monitoring activities demonstrate that achievement.

(3) The response is fully operational and performing to design specifications.

(4) The only remaining activities at the site involve operations and maintenance.

(b) *Range close-out report.* A range close-out report shall be prepared supporting completion of the response. This report will include:

(1) A summary of the range's history and past and current conditions.

(2) Demonstration that all response objectives have been met.

(3) A determination that sufficient monitoring results have been collected to demonstrate that the response objectives have been achieved.

(4) Demonstration that any long-term maintenance requirements for the response are capable of being successfully carried out.

(5) Documentation that the range response has effectively addressed the risks posed by military munitions, UXO, or other constituents at the range. Approval must be obtained from DDESB.

(c) *Public and government agency involvement.* This paragraph describes Federal, State, and local government; American Indian tribal; and public involvement in the process of ending the range response.

(1) Once the draft range close-out report is complete, the responsible DoD component shall:

(i) Send a copy of the draft range close-out report to the appropriate Federal and state regulators and American Indian Tribe, seeking their review and comment.

(ii) Publish a notice of intent to end response activities in a major local newspaper of general circulation announcing a forty-five (45)-day period for submission of written comments.

(iii) Hold a public meeting or availability session, if requested.

(iv) Develop written responses to significant comments received during the comment period and prepare a final range close-out report.

(2) The responsible DoD component shall then prepare a formal decision document specifying the action(s) to be taken.

(i) This decision document and all supporting information are part of the administrative record.

(ii) Copies of the decision document and final report will be sent to the appropriate Federal, State, and local governments; American Indian tribe; and the current property owner.

(iii) The responsible DoD component shall seek concurrence on the decision document in accordance with § 178.14(e).

(d) *The Department of Defense's continuing obligation.* If at some future date a problem is discovered at a military range that has been administratively closed out, the Department of Defense will conduct an

appropriate response to address the problem. This response typically will be handled as an explosives or munitions emergency response; however, if the circumstances indicate a need for a more detailed response, the Department of Defense will reopen the range response process and conduct any appropriate actions.

§ 178.13 Information repository and the administrative record.

(a) *Purpose.* The Department of Defense seeks to ensure full and active participation by any public or private entity interested in the range response process. Accomplishing this requires making information about the response activities taken at each military range available to the public. This section establishes the minimum requirements for making this information available.

(b) *Information repository.* The responsible DoD component shall establish an information repository.

(1) This information repository will be located where it is easily accessible to the local population, such as the community library. The information repository will be established when the RA/AR is initiated.

(2) Upon completion of each relevant study document, report, or decision document, the responsible DoD component will place a copy of that document in the information repository.

(c) *Administrative record.* The responsible DoD component shall establish an administrative record that contains the documents that form the basis for the selection of response actions.

(1) The administrative record shall be maintained at a location near the site being addressed, as established by the responsible DoD component.

(2) A copy of the administrative record shall be made publicly available at the information repository.

(3) Documents to be placed in the administrative record include, but are not limited to, the following:

(i) Notice that the RA/AR is being initiated.

(ii) The RA/AR report.

(iii) The RE plan.

(iv) All explosives safety plans.

(v) The RE report.

(vi) The SSRE plan.

(vii) The site-specific evaluation report.

(viii) The site-specific response implementation plan.

(ix) Recurring review reports.

(x) The range close-out report.

(xi) All decision documents.

(xii) All public comments.

§ 178.14 Participation of and concurrence role for Federal and State regulatory agencies, American Indian tribes, and Federal land managers.

(a) *General.* This part provides the appropriate Federal and State environmental remediation regulatory agencies and American Indian tribes with the opportunity to concur and participate in the development of the various decision documents under this part. This part also provides Federal land managers having jurisdiction, custody, or control over property on which a range response will occur the opportunity to concur and otherwise participate. The provisions of this section are in addition to the provisions elsewhere in this part which provide for participation of Federal, state, and local governments; American Indian tribes; the public; and current property owners.

(b) *A Federal land manager for a transferred or transferring range* will be given the opportunity to participate on the range response project team during all phases of the range response as an equal member of the team, with access to project documents and information. The Federal land manager will be provided a concurrence role during the evaluation and response at the range, including at the RA/AR, RE/SSRE, recurring review, and administrative close-out phases. In the absence of concurrence on significant issues or a document, a Federal land manager member of the project team may invoke the formal dispute resolution mechanism provided in § 178.15(b).

(c) *Review.* As required under this part, the responsible DoD component will seek review and comments from the appropriate Federal, State, and local governments; American Indian tribe; Federal land manager; the public; and other parties on the following: the RA/AR report under § 178.7; the RE report under § 178.8, if prepared; the SSRE report under § 178.9; the recurring review report under § 178.11; and the range close-out report under § 178.12. The parties identified in paragraph (e) of this section shall have forty-five (45) days for review of these documents. The responsible DoD component will then respond to significant comments, after which the responsible DoD component will issue a draft decision document for concurrence from the parties identified in paragraph (e).

(d) *Decision documents.* For purposes of this paragraph, ''decision documents'' shall mean the following: the decision document prepared under § 178.7(e)(8) for the RA/AR phase; the decision document prepared under § 178.8(f)(4) or (6) for the RE; the decision document prepared under § 178.9(g)(4) for the SSRE; the decision document prepared under § 178.11(e)(2) for the recurring review phase; the decision document prepared under § 178.12(c)(2) for the administrative close-out phase; and any final work plan for on-range activities under § 178.7(b)(2)(i). These decision documents shall include any TI or no further action determinations, as well as ARAR waivers.

(e) *Concurrence.* When the responsible DoD component provides a draft decision document, the appropriate Federal or State regulatory agency or affected American Indian tribe, as well as to any Federal land manager having jurisdiction, custody, or control over property on which a range response will occur, will have forty-five (45) calendar days from the date of dispatch to provide its written concurrence or nonconcurrence with the draft decision document. An extension of up to thirty (30) additional days may be granted by the responsible DoD component, upon request. If no written response is received by the responsible DoD component within that forty-five (45)-day period, or seventy-five (75)-day period if an extension was granted, then the responsible DoD component may proceed with a range response action or invoke the dispute resolution process as set forth in § 178.15(b), or both. If a regulatory agency, American Indian tribe, or Federal land manager provides a timely nonconcurrence to the responsible DoD component, then the regulatory agency, American Indian tribe, or Federal land manager and the responsible DoD component will attempt to informally resolve the dispute. If they are unable to informally resolve the dispute to the satisfaction of the regulatory agency, American Indian tribe, or Federal land manager, then the regulatory agency, American Indian tribe, or Federal land manager, as the case may be, may utilize the formal dispute resolution mechanism provided in § 178.15(b).

(f) *Alternative timelines and dispute resolution.* The responsible DoD components and regulatory agencies, American Indian tribes, or Federal land managers may enter into agreements, either site-specific or area-wide, that provide for different timelines and dispute resolution procedures. These agreements may combine the review and dispute resolution procedures under this part with environmental remediation actions taken under other authorities or agreements in order to achieve efficiency and uniformity. Any such agreement will not make the review and dispute resolution processes or decision documents under this part

subject to the assessment of fines or penalties of any kind.

§ 178.15 Dispute resolution.

(a) If a dispute arises under this part, interested entities who may feel aggrieved by the responsible DoD component's response activities are encouraged to pursue alternative dispute resolution mechanisms with the responsible DoD component to resolve any differences over the response alternatives selected.

(b) If a dispute on a significant issue or document arises under § 178.14 that is not resolved informally between the Federal or State regulatory agency, American Indian tribe, or Federal land manager and the responsible DoD component at the project officer level, then the regulatory agency, American Indian tribe, Federal land manager, or responsible DoD component, as the case may be, may pursue the following formal dispute resolution procedure:

(1) The regulatory agency, American Indian tribe, or Federal land manager will provide a written statement of its dispute, along with any rationale or supporting documents, to the military commander representing the responsible DoD component. The military commander will engage in discussions with the regulatory agency, American Indian tribe, or Federal land manager in an attempt to arrive at a consensus and resolve the dispute.

(2) If no resolution is reached within thirty (30) calendar days of receipt of the statement of dispute, then the dispute may be elevated to the responsible DoD component's headquarters-level official, or his/her designee. The headquarters-level official for the responsible DoD component will engage in discussions with the regulatory agency, American Indian tribe, or Federal land manager to attempt to arrive at a consensus. If consensus is not achieved, the headquarters-level official for the responsible DoD component will announce his or her resolution of the dispute, along with a written statement of the supporting rationale.

(3) Within thirty (30) calendar days from announcement of a resolution under § 178.15(b)(2), the dispute may be elevated to the principal environmental policymaker for the responsible DoD component, or his or her designee. The principal environmental policymaker for the DoD component will engage in discussions with the regulatory agency, American Indian tribe, or Federal land manager to attempt to arrive at a consensus. If consensus is not achieved, the headquarters-level official for the DoD component will announce his or her resolution of the dispute, along with a written statement of the supporting rationale.

(4) In the case of a dispute involving Federal agencies with respect to the application and/or interpretation of this part, a Federal agency dissatisfied with the results of the dispute resolution process in paragraphs (b)(1) through (b)(3) of this section may raise its dispute within thirty (30) calendar days from announcement of a resolution under paragraph (b)(3) to the Secretary of the Military Department, or his or her designee who must be a political appointee whose appointment requires the advice and consent of the Senate, and to its Department Secretary/Agency Administrator, or his or her designee who also must be a political appointee whose appointment requires the advice and consent of the Senate. For disputes arising at a closed, transferred, or transferring range that is a facility listed on the NPL, the Secretary of the Military Department (or his or her designee) shall resolve issues related to explosives safety, and the EPA Administrator (or his or her designee) shall resolve issues related to the release or substantial threat of release of other constituents that are subject to CERCLA jurisdiction. If consensus is not achieved, then the Secretary of the Military Department (or his or her designee) and/or, as applicable, the EPA Administrator (or his or her designee) will announce his or her resolution of the dispute, along with a written statement of the supporting rationale. Nothing in this paragraph shall restrict or enlarge the authority of the EPA Administrator with respect to a facility on the NPL. If any party is dissatisfied with the resolution of the dispute, the dispute may be elevated to the Office of Management and Budget (OMB).

(5) In the case of a dispute involving a State regulatory agency or American Indian tribe with respect to the application and/or interpretation of this part, a State or tribe dissatisfied with the results of the dispute resolution process in paragraphs (b)(1) through (b)(3) of this section may raise its dispute within thirty (30) calendar days from announcement of a resolution under paragraph (b)(3) to the Secretary of the Military Department, or his or her designee who must be a political appointee whose appointment requires the advice and consent of the Senate, and to the Governor of the State or the American Indian tribal leader as appropriate, or their designee. If consensus is not achieved, the Department Secretary or his or her designee will announce his or her resolution of the dispute, along with a written statement of the supporting rationale, with respect to the application and interpretation of this part, and the State or tribe may pursue its authority under any applicable laws.

(6) The dispute resolution process set forth in this section may also be utilized by a DoD component as provided for elsewhere in this part (for example, when significant unresolved issues exist). The same levels for dispute resolution will be utilized in such cases; however, in such cases, the DoD component would provide a written statement of its dispute, along with supporting rationale, to the regulatory agency, American Indian tribe, or Federal land manager, as applicable.

(7) Range response activities will not be suspended during the dispute resolution process absent extraordinary circumstances. If the Secretary of a Federal land manager, or his or her designee whose appointment requires the advice and consent of the Senate, provides a written declaration with supporting rationale to the Department Secretary for the DoD component, stating that an immediate suspension of response activities during the full dispute resolution process is needed to prevent substantial environmental harm that would result from the performance of the activity itself, the responsible DoD component shall immediately suspend such activity, to the extent consistent with the protection of human health from any imminent and substantial danger. The suspension issue (i.e., whether to suspend response actions during the full dispute resolution process) will be raised directly to the Military Service Department Secretary, or his or her designee whose appointment requires the advice and consent of the Senate, consistent with paragraph (b)(4) of this section. The Secretary of the Federal land manager and the Military Service's Department Secretary will have 5 calendar days to arrive at a consensus on the suspension issue. If no consensus is reached, then the Federal land manager will have 5 calendar days to raise the suspension issue to OMB and request OMB to decide whether to continue the suspension of the response action. Five days following the submission of the suspension issue to OMB, the Military Service can resume activity unless OMB makes or has made a determination that the response actions should not resume pending resolution of the underlying dispute, or that an additional time period is needed to consider the merits of the arguments over whether the response action should be allowed to resume.

(8) These time limits may be extended on the mutual agreement of the parties to the dispute.

§ 178.16 Future land use for transfers within the Federal government.

(a) This section discusses how future land use issues are incorporated where a Federal land manager has jurisdiction, custody, or control over property on which a range response will or has occurred.

(b) For transferring ranges, the Department of Defense will conduct and fund response activities consistent with all reasonably anticipated future land uses that are identified and agreed to between the parties to the land transfer prior to the transfer. Where the transfer of the military range is mandated by statute, Executive Order, a previously concluded agreement between the Department of Defense and the Federal land manager, or under the terms of a withdrawal, special-use permit or authorization, right-of-way, public land order, or other instrument issued by the Federal land manager under which the Department of Defense used the property, and where future land uses are not identified or response activities are not specified in such statute, order, agreement, or instrument, any dispute will be resolved through utilization of the dispute resolution procedure identified in this part. Where the transfer is not legally mandated, disagreement over what the reasonably anticipated future land uses are may result in the transfer of the property to some other party, or no transfer. Technology limitations may restrict current uses or cleanup of the property. Reasonably anticipated future land uses for the property will not necessarily be limited by current technological limitations on the cleanup of UXO on ranges.

(c) For transferred ranges, in the absence of a prior agreement identifying reasonably anticipated future land uses or imposing land use restrictions, the Department of Defense will conduct and fund response activities consistent with all reasonably anticipated future land uses at the time of the range response. Reasonably anticipated future land uses will be decided by the Federal land manager with the concurrence of the Department of Defense. If there is disagreement, the dispute resolution procedure identified in this part will be utilized. Technology limitations may restrict current uses or cleanup of the property. Reasonably anticipated future land uses for the property will not necessarily be limited by current technological limitations on the cleanup of UXO on ranges.

(d) If there is disagreement over the reasonably anticipated future land uses, the dispute resolution provisions in § 178.15 will be utilized. Technology limitations may restrict current uses or cleanup of the property. Reasonably anticipated future land uses for the property will not necessarily be limited by current technological limitations on the cleanup of unexploded ordnance on ranges.

(e) The Department of Defense will conduct and fund additional response actions where:

(1) The remedy fails (e.g., the remedy fails to meet previously identified remediation goals or response objectives; restrictions on access or other institutional controls fail not due to the acts or omissions of the Federal land manager but due to changes in the use of or access to surrounding parcels of property, such as those relating to population growth and migration; or through other developments out of the control of the Federal land manager); or

(2) Contamination (i.e., other constituents) caused by the Department of Defense of a previously unknown nature, location, magnitude, or extent creates conditions inconsistent with the reasonably anticipated land use that had been agreed upon or otherwise established; or

(3) Additional UXO is found that creates conditions inconsistent with the established reasonably anticipated land use; or

(4) Changes in applicable laws or regulations concerning cleanup standards necessitate reassessment of a previous response; or

(5) UXO technology limited the range response, with the result that the use of the land is more restricted than the established reasonably anticipated future land use, but later improvements in technology that are cost effective allow for removal of such a restriction and there is a current need for the removal of such restriction; or

(6) A statute, a final and binding court order, or a final and binding administrative order necessitates additional response actions to address UXO attributable to Department of Defense activities on the property, provided that the order is not occasioned by Federal land manager activities that are inconsistent with the reasonably anticipated future land use; or

(7) The remedy fails to protect previously unidentified significant environmental or cultural resources that would have been protected consistent with the established reasonably anticipated future land use and this part, had their existence been known at the time of the previous range response.

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