

June 1995

# MEAT AND POULTRY INSPECTION

## Impact of USDA's Food Safety Proposal on State Agencies and Small Plants







United States  
General Accounting Office  
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Resources, Community, and  
Economic Development Division

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June 30, 1995

The Honorable Pat Roberts  
Chairman  
The Honorable E (Kika) de la Garza  
Ranking Minority Member  
Committee on Agriculture  
House of Representatives

The Honorable Steve Gunderson  
Chairman, Subcommittee on Livestock,  
Dairy, and Poultry  
Committee on Agriculture  
House of Representatives

In 1993, hamburger contaminated with the *E. coli* 0157:H7 bacteria on the West Coast killed four children and caused hundreds of illnesses. Subsequently, the U.S. Department of Agriculture announced that it would move to a “farm to table” system of ensuring the safety of meat and poultry products. As part of this effort, in February 1995, the Department’s Food Safety and Inspection Service (FSIS) proposed that each meat and poultry slaughter and processing plant adopt a system of preventive control for food safety, known as the Hazard Analysis and Critical Control Points (HACCP) system, under FSIS monitoring.<sup>1</sup> The HACCP proposal, now the subject of public comments in the rulemaking process, would require all meat and poultry plants, including plants where states are responsible for inspection, to adopt systems for controlling food-safety hazards and producing safe foods. Federal and state meat and poultry inspection agencies would be required to take on some additional monitoring activities under the HACCP proposal.

In January 1995, you requested that we (1) describe state meat and poultry inspection programs, (2) provide information on the expected effects of the Department’s proposed HACCP rule on state inspection programs, and (3) discuss the likely effects of the HACCP rule on small plants.

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## Results in Brief

The Food Safety and Inspection Service has two major programs with the states for cooperative meat and poultry inspection: the Talmadge-Aiken Program, which authorizes state inspectors to provide federal inspection services in plants that sell their products in interstate commerce; and the

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<sup>1</sup>FSIS’ proposal was published in the Federal Register on February 3, 1995.

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State-Federal Program, in which state inspectors perform all inspection activities in plants that can only trade within the state. In fiscal year 1994, the Food Safety and Inspection Service reimbursed the states about \$40 million—half of the states’ total costs—for their inspection programs’ activities.

In general, while supporting the concept of using hazard analysis and critical control points, state inspection agency officials are concerned that the proposed rule will increase the cost of state meat and poultry inspections. In particular, they expect that incorporating the proposed rule into their current inspection system will result in additional costs for equipment, staff, and training. Food Safety and Inspection Service officials, however, believe that the costs to the states will be minimal because the Inspection Service plans to provide training and to pay for at least half of the costs of adopting the new rule.

State inspection officials and industry representatives are also concerned that the new rule, if enacted as proposed, will drive many small meat and poultry processors out of business, mainly because of the cost of performing microbial sampling and testing. The Food Safety and Inspection Service acknowledges in its proposed rule that small plants will be disproportionately affected by rule-related costs and asks for specific comments on dealing with this issue.

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## Background

By law, FSIS has overall responsibility for ensuring the safety of all meat and poultry products sold in the United States. FSIS directly oversees plants that slaughter and process meat and poultry traded in interstate commerce. Generally, FSIS assigns federal inspectors to interstate trading plants; however, under the Talmadge-Aiken Program, state inspectors perform inspections in certain interstate trading plants. Since the late-1960s, FSIS has also been responsible for plants that only trade in intrastate commerce. These plants account for less than 1 percent of the annual U.S. meat and poultry production. Under the State-Federal Program, FSIS delegates inspection of plants that trade only in intrastate commerce to those states that maintain inspection programs. FSIS monitors these programs, which must be “equal to” the federal program. In general, states with intrastate inspection programs began those programs prior to FSIS’ assuming jurisdiction.<sup>2</sup> FSIS shares half the cost of the state programs with the states.

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<sup>2</sup>In 1967, the Federal Meat Inspection Act was amended to give FSIS authority over plants producing meat for intrastate trade. In 1968, the Poultry Products Inspection Act was amended similarly. Previously, plants selling meat or poultry intrastate were under state jurisdiction.

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FSIS' current inspection activities differ somewhat for slaughtered and processed products. At slaughter plants, FSIS is required by law to perform antemortem and postmortem inspections of each animal slaughtered, and federal inspectors are stationed in plants to inspect each animal and carcass by sight, touch, and smell for disease, abnormalities, and contamination (organoleptic inspection). Inspectors also sample carcasses for certain types of microbial and chemical contamination. For processed meat and poultry products, FSIS inspects all processing plants at least daily. FSIS inspectors target inspection activities in processing plants according to the product's riskiness and the plant's compliance history. Inspectors use an automated system—Performance Based Inspection System (PBIS)—designed specifically for FSIS to determine which products to inspect or other inspection tasks to perform.

FSIS is proposing to change how it ensures meat and poultry safety by requiring plants to implement HACCP systems designed to identify and prevent microbial and other hazards in food production. The HACCP concept includes systematic steps to prevent problems from occurring and to correct deviations as soon as they are detected. A HACCP system consists of seven principles that plants must incorporate into their operations: hazard analysis, critical control point identification, establishment of critical limits, monitoring procedures, corrective actions, recordkeeping, and verification procedures.

FSIS is proposing to phase in HACCP requirements throughout the regulated industry over 3 years, with small plants implementing HACCP systems during the final phase. For the purposes of the HACCP proposal, FSIS has defined a small plant as an establishment with annual sales of less than \$2.5 million. About 17 percent of all slaughter and 42 percent of all processing plants in the United States would be classified as small; also, FSIS considers all state-regulated establishments to be small plants. Industry would bear most of the cost to develop and implement HACCP systems.

As part of the proposed HACCP rule, FSIS plans to require that plants adopt near-term initiatives to help them make the transition to HACCP systems. The near-term initiatives—standard operating procedures for sanitation, antimicrobial washes for carcasses, prompt and continuous chilling of products, and microbial testing—must be in place 90 days after the rule's adoption. Slaughter plants and ground-meat and ground-poultry processors must adopt all of the near-term initiatives. Other types of plants, such as those producing fully cooked products, will only be required to

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implement the sanitation procedures. The near-term initiatives will be, for the most part, incorporated into the plants' HACCP systems.

Details of how FSIS inspectors' activities will change under the HACCP rule have not been made final. Because of the legal requirement for a carcass-by-carcass inspection, FSIS inspectors will continue antemortem and postmortem inspections of each animal slaughtered. Inspectors would have some new duties for monitoring plants' implementation of HACCP systems, such as overseeing plants' critical control point monitoring and microbial testing. State inspection activities would change similarly.

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## States' and FSIS' Cooperation for Inspections

Under cooperative agreements with 27 states, FSIS uses state inspection programs to help ensure that meat and poultry from these states meet federal standards. State inspection programs must be at least "equal to" the federal programs. FSIS determines whether state programs qualify through an extensive process that includes performance plans, feedback from FSIS supervisors, and documentation in annual reports. The cooperative agreements cover the two major meat and poultry inspection programs: the Talmadge-Aiken and the State-Federal programs. They cost FSIS about \$40 million for fiscal year 1994. (See app. I for information about individual state meat and poultry inspection programs.)

Currently, 10 states participate in the Talmadge-Aiken Program. Under this program, state inspectors carry out federal inspection duties in 258 plants that meet all federal requirements and thereby qualify to sell their meat and poultry products in interstate commerce. Talmadge-Aiken plants are generally small and in remote locations, where it is not economical for FSIS to maintain full-time federal inspection services. FSIS reimburses the states for half of the cost of the activities they perform for the federal government.

Under the State-Federal Program, 27 states operate their own meat and poultry inspection programs. By law, plants inspected by the states are not eligible to trade in interstate commerce, since they comply with state, rather than federal, requirements. Through the State-Federal Program, FSIS oversees state regulation of the production activities of the 2,890 plants that are authorized to trade only within state. FSIS provides assistance—such as training and/or laboratory services—to the state agencies and monitors the states' inspection activities. The states are reimbursed for up to half of their costs to maintain inspection programs in these plants, which, like the Talmadge-Aiken plants, are generally small

and in remote locations. In fiscal year 1994, FSIS reimbursed the states \$39.7 million for the State-Federal and Talmadge-Aiken inspection activities combined.<sup>3</sup>

In addition to the Talmadge-Aiken and State-Federal inspection activities, state inspectors are sometimes temporarily assigned to federal inspection duties, and federal inspectors to state duties, when it makes economic sense to do so. Each level of government is fully reimbursed for the cost of the cross-utilization.

## Effect of HACCP on State Inspection Programs

Because state meat and poultry inspection programs must be “equal to” the federal program, FSIS’ HACCP proposal would require state inspection agencies to adopt inspection and monitoring activities comparable to those used by FSIS. States would have to make two principal changes to their programs: (1) adopt an automated performance- and risk-based system, such as PBIS, as a tool that would enable them to schedule and monitor inspections and plants’ compliance with the HACCP rule and (2) have inspectors implement HACCP monitoring procedures, including overseeing plants’ critical control point monitoring and microbial testing.

With the first change, it would be necessary for state inspection agencies to implement PBIS or a similar automated system designed to (1) allocate and schedule state inspection resources according to risk; (2) document statewide inspection results to determine industry’s performance overall; (3) document the performance and corrective actions taken by individual plants; and (4) initiate actions to address repeated deficiencies in a plant, such as withdrawing inspection privileges. The new system would require computer equipment and software and staff trained to operate it.

Under the second change, the state inspection agencies would need to monitor the microbial testing and other HACCP procedures performed by the plants. The HACCP monitoring would require that state inspectors be trained in the appropriate procedures; also, some additional laboratory costs would probably be incurred to monitor the plants’ microbial testing.

According to FSIS’ Director of Federal-State Relations, 15 of the 27 states have received the PBIS software and related training.<sup>4</sup> Currently, one of

<sup>3</sup>It is not possible to separate accurately the costs of the Talmadge-Aiken and State-Federal programs because the states and FSIS track cooperative program funds in total.

<sup>4</sup>As part of the requirement for states to have inspection systems equal to FSIS’, FSIS is requiring that each state adopt an automated system such as PBIS by September 1996. The states must meet this requirement whether or not the HACCP rule is implemented.

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these states is using PBIS fully, and the rest are beginning to use it. Most of the remaining 12 states use a PBIS forerunner, which may or may not be automated. The earlier system considers plants' past performance but not product's riskiness in scheduling inspections and is less effective in recording inspection results. FSIS plans to furnish PBIS software and training to these states as soon as they have the equipment and staff to use it.

FSIS officials estimate that at least eight states will need PBIS inspector training. Inspectors in some states are already familiar with PBIS field techniques, having used PBIS to perform federal inspection duties under the Talmadge-Aiken Program and through cross-utilization activities. FSIS has queried the states about their inspector training needs and will plan PBIS training when the states have responded. Furthermore, FSIS plans to offer relevant training for state inspectors after the HACCP rule is adopted.

In February 1995, the National Association of State Departments of Agriculture's (NASDA) Director of Legislative and Regulatory Affairs asked the 27 state inspection agency directors about the expected effects of complying with FSIS' HACCP proposal. The state directors generally supported the HACCP concept; however, of the 22 state directors who responded, 19 expected additional costs for training, computer hardware and software, or laboratory analysis. Start-up cost estimates ranged from minimal to \$54,000 per state and the longer-term cost estimates ranged from a savings to an additional \$1.3 million per year per state. According to the President of the National Association of State Meat and Food Inspection Directors,<sup>5</sup> the larger state programs with automated inspection programs can generally expect to make the fewest changes and to absorb the additional costs most easily. In responding to NASDA's questions, several of the state directors expressed concern about how to pay for any cost increase in light of their already strained state budgets, and some were concerned that the states will be forced to turn their inspection programs over to FSIS.

FSIS officials do not believe that the switch to HACCP systems will be costly for the state inspection agencies. They acknowledge that assistance in adopting PBIS is needed, and, to help provide this, FSIS is providing each state with the software and training. Also, FSIS officials expect that PBIS will help the states reallocate their inspection resources more effectively. Furthermore, FSIS plans to pay for at least half of the cost of retraining the

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<sup>5</sup>All state meat and poultry inspection agency directors are members of the National Association of State Meat and Food Inspection Directors, which is a subgroup of and is represented by NASDA.

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inspectors for the new HACCP monitoring duties, which is the usual training reimbursement under the cooperative agreements.

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## Effect of HACCP on Small Plants

FSIS chose to define small plants broadly—as those with less than \$2.5 million in annual sales—to allow as many of the plants as possible the full 3 years to implement HACCP systems. Both FSIS and the President of the National Association of Meat and Food Inspection Directors believe that virtually all of the 2,890 plants that trade only within their state would qualify as small plants. In addition, 2,234 federally inspected plants would be considered small. In total, they account for about 57 percent of the plants in the industry, yielding less than 1 percent of the annual slaughter and processed meat and poultry production.

The effect of the HACCP rule varies according to the activities the plant carries out. For example, for small plants under the HACCP rule's near-term initiatives, meat slaughtering would be the single activity with the highest cost increases because it requires all of the near-term interventions.<sup>6</sup> Conversely, the extra costs for near-term processing activities would be the cheapest, because they require only sanitation procedures. When HACCP is fully implemented, the changes to certain processing activities that FSIS classifies as difficult will be the most expensive because these activities generally have more critical control points and related costs, such as those for recordkeeping. The changes to meat slaughtering will be the cheapest because it has few critical control points and related costs.

An individual plant may perform any number of the activities on a given day. According to the President of the National Association of State Meat and Food Inspection Directors, small plants probably perform two to three activities on 2 to 3 days of each week. For example, FSIS estimates that a small plant engaged in one processing activity, such as grinding meat or poultry, would spend about \$50,000 more during the first 4 years of the rule's implementation (3 years for near-term initiatives and 1 year for HACCP start-up costs). Additional annual costs thereafter would be about \$12,000. A plant that slaughters only cattle would spend about \$52,000 more during the first 4 years and an additional \$12,000 annually thereafter. Plants performing more than one activity, for example, slaughtering and grinding beef, will have higher increased costs because of the additional activities.

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<sup>6</sup>Plants performing multiple meat-slaughtering activities (e.g., for cattle, hogs, sheep, etc.) will incur the highest near-term costs.

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Most state inspection agency directors expressed concern that many small meat and poultry plants in their state will not be able to afford to comply with the HACCP requirements, especially the cost of microbial testing. Because the plants produce small volumes of products, for example, 100 pounds of ground beef per day, the fixed daily cost of microbial testing will increase small plants' prices per pound of product much more than the prices of larger-volume plants, making it difficult for the small plants to price their products competitively. Also, many of the small plants are "mom and pop" operations with a limited number of employees and manual recordkeeping systems. These plants may not be able to afford the training, additional staff, and equipment needed to monitor and document the critical control points called for in the HACCP rule.

A number of owners of small plants expressed concerns about the cost of complying with the HACCP rule during a recent public meeting scheduled by FSIS.<sup>7</sup> In general, they are worried about going out of business because of the increased cost of implementing the HACCP rule. Also, some expressed concern that, as plants in rural areas close, more slaughtering activities will be performed illegally or privately on farms under uncontrolled sanitary conditions. Furthermore, they believe that they currently have adequate controls over their products' safety—because they know their customers, often by first names, they would know if the products caused illness. One owner of a small plant summarized the comments of several by saying that he would not produce bad products for his friends and family.

A Texas A&M University study issued in April 1995 recognizes that small plants will be disproportionately affected by the implementation of the HACCP rule.<sup>8</sup> FSIS is also concerned about the effect of the rule on small plants. As part of the public comment process for the proposal, FSIS has asked for suggestions on how to ease the burden that the cost of HACCP systems would place on small plants and offered additional informational sessions. In this regard, FSIS plans to provide technical assistance, such as generic HACCP plans, that small plants can use.

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<sup>7</sup>FSIS scheduled the meeting in Kansas City, Kansas, as an opportunity to present details about the costs of the rule for small plants and to allow the owners of small plants a chance to ask questions and air their concerns.

<sup>8</sup>Reforming Meat and Poultry Inspection: Impacts of Policy Options, Institute for Food Science and Engineering Center, Center for Food Safety, Texas A&M University System (College Station, Texas: Apr. 1995).

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## Agency Comments

We provided a draft of this report to FSIS. We met with two FSIS associate administrators and other relevant FSIS officials, who generally agreed with the contents of the draft. The officials suggested that the report include two additional clarifying points. First, they said that the report should note that FSIS is requiring that state inspection agencies adopt PBIS or a similar automated system, notwithstanding action on the proposed HACCP rule. The FSIS officials acknowledged that, while PBIS is not a requirement of the HACCP rule per se, such a system is a necessary prerequisite to the rule's implementation. Second, while agreeing that meat slaughtering is the single activity that will have the highest increase in cost under the near-term initiatives for small plants, the officials said that it was important to recognize that plants performing multiple meat-slaughtering activities will face the highest increased costs under the near-term initiatives. They believe that this is an important point, since many small plants perform multiple meat-slaughtering activities. We have included these clarifying points in the report.

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## Scope and Methodology

In developing information for this report, we spoke with and obtained documentation from FSIS and Economic Research Service officials, state inspection agency directors and representatives, industry association officials, selected owners of small plants, and other officials in industry and academia who are familiar with the industry and with issues related to meat and poultry inspection. Furthermore, we attended FSIS-sponsored conferences in Philadelphia, Washington, and Kansas City concerning the proposed HACCP rule. We also reviewed selected public comments on the proposal.

We conducted our work between January and June 1995 in accordance with generally accepted government auditing standards.

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We are sending copies of this report to appropriate congressional committees; interested Members of Congress; the Secretary of Agriculture; the Under Secretary for Food Safety; and other interested parties. Copies are available on request.

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Please contact me at (202) 512-5138 if you or your staff have any questions. Major contributors to this report are listed in appendix II.

A handwritten signature in black ink, reading "John W. Harman". The signature is written in a cursive style with a large initial "J" and "H".

John W. Harman  
Director, Food and  
Agriculture Issues

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# States With Cooperative Meat and Poultry Inspection Programs, 1994

State	State-Federal Program	No. of Plants	Talmadge-Aiken Program	No. of Plants	Cost to FSIS in FY 1994
Alabama	Yes	79	Yes	19	\$1,146,281
Alaska	Yes	14	No	0	314,850
Arizona	Yes	66	No	0	471,475
Delaware	Yes	4	No	0	198,803
Florida	Yes	138	No	0	2,095,602
Georgia	Yes	91	Yes	49	2,391,944
Hawaii	Yes	46	Yes	11	1,279,744
Illinois	Yes	358	Yes	31	4,183,294
Indiana	Yes	121	Yes <sup>a</sup>	6	1,696,088
Iowa	Yes	149	No	0	921,651
Kansas	Yes	155	No	0	1,333,113
Louisiana	Yes	100	No	0	1,613,279
Mississippi	Yes	55	Yes	16	994,325
Montana	Yes	35	No	0	294,724
New Mexico	Yes	37	No	0	388,400
N. Carolina	Yes	169	Yes	53	2,779,914
Ohio	Yes	271	No	0	4,171,010
Oklahoma	Yes	83	Yes	15	1,469,952
S. Carolina	Yes	110	No	0	1,044,320
S. Dakota	Yes	56	No	0	403,909
Texas	Yes	340	Yes	24	4,791,351
Utah	Yes	30	Yes	10	682,986
Vermont	Yes	14	No	0	241,961
Virginia	Yes	31	Yes	24	1,255,747
W. Virginia	Yes	32	No	0	560,085
Wisconsin	Yes	272	No	0	2,761,304
Wyoming	Yes	34	No	0	252,217
<b>Total</b>	<b>27</b>	<b>2890</b>	<b>11</b>	<b>258</b>	<b>\$39,738,329</b>

<sup>a</sup>Indiana withdrew from the Talmadge-Aiken Program in 1995.

# Major Contributors to This Report

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