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Report to Congressional Requesters

January 2004

HUMANE METHODS OF SLAUGHTER ACT

USDA Has Addressed Some Problems but Still Faces Enforcement Challenges

GAO-04-247

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Highlights

Highlights of GAO-04-247, a report to Congressional Requesters

Why GAO Did This Study

In 1978, the Congress passed the Humane Methods of Slaughter Act to ensure that cattle, sheep, hogs, and other animals destined for human consumption are handled and slaughtered humanely. Within the U.S. Department of Agriculture (USDA), the Food Safety and Inspection Service (FSIS) is responsible for enforcing the act. Recently, the Congress took additional actions to improve FSIS enforcement. GAO reviewed (1) the frequency and scope of humane handling and slaughter violations, (2) actions to enforce compliance, and (3) the adequacy of existing resources to enforce the act.

What GAO Recommends

GAO recommends that FSIS (1) record specific information on the type and causes of violations; (2) establish additional clear, specific, and consistent criteria for districts to use when considering enforcement because of repetitive violations; (3) require that districts and inspectors clearly document the basis for enforcement that are due to repetitive violations; (4) develop a mechanism for determining the level of effort inspectors devote to the HMSA; (5) develop criteria for determining the appropriate level of inspection resources needed; and (6) assess whether that level is sufficient to effectively enforce the act. FSIS generally agreed with our findings and recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-04-247.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Lawrence J. Dyckman at (202) 512-3841 or dyckmanl@gao.gov.

What GAO Found

Incomplete and inconsistent inspection records made it difficult to determine the frequency and scope of humane handling and slaughter violations. FSIS was unable to produce at least 44 of its inspection records that document violations of the Humane Methods of Slaughter Act (HMSA) and implementing regulations. Also, inspectors did not always document violations of the HMSA because they may not have been aware of regulatory requirements. Further, the records that FSIS provided did not consistently document the scope and severity of each incident. USDA is taking steps to address these issues.

Enforcement actions to address noncompliance with the act and regulations were also inconsistent. For example, we found that FSIS inspectors temporarily halted stunning operations in more than half of the cases involving ineffective stunning of a single animal, but in less than half of similar cases involving multiple animals. We also found that FSIS officials may not be using consistent criteria to suspend plant operations—the enforcement action used when serious or repeated violations of the HMSA occur. As a result, plants in different FSIS districts may not be subject to comparable enforcement actions. In November 2003, FSIS issued clearer guidance to its inspectors and field personnel that should help resolve some of these problems.

FSIS lacks detailed information on how much time its inspectors spend on humane handling and slaughter activities making it difficult to determine if the number of inspectors is adequate. In general, FSIS officials believe that, with the introduction of a District Veterinary Medical Specialist at each of the agency's field offices, the current number of personnel devoted to humane handling and slaughter compliance is adequate.

Livestock Being Moved inside Slaughter Facility

Source: Food Safety and Inspection Service, USDA.

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Abbreviations

DVMS	District Veterinary Medical Specialist
FSIS	Food Safety and Inspection Service
HMSA	Humane Methods of Slaughter Act
USDA	U.S. Department of Agriculture

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G A O
Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

January 30, 2004

The Honorable Robert F. Bennett
Chairman
The Honorable Herb Kohl
Ranking Minority Member
Subcommittee on Agriculture, Rural Development,
and Related Agencies
Committee on Appropriations
United States Senate

The Honorable Henry Bonilla
Chairman
The Honorable Marcy Kaptur
Ranking Minority Member
Subcommittee on Agriculture, Rural Development,
Food and Drug Administration, and Related Agencies
Committee on Appropriations
House of Representatives

More than 125 million cattle, sheep, hogs, and other animals ultimately destined to provide meat for human consumption were slaughtered in fiscal year 2002, at some 900 federally inspected facilities throughout the United States. In response to public concerns about cruelty to livestock in meatpacking plants, the Congress passed the Humane Slaughter Act of 1958. The act established as the policy of the United States that the slaughtering and handling of livestock be carried out only by humane methods. The act's provisions applied only to plants desiring to sell meat to the federal government.[1] Twenty years later, the Congress passed the Humane Methods of Slaughter Act (HMSA) of 1978 to ensure that at all federally inspected slaughter establishments, not just those selling meat to the federal government, adopt humane handling and slaughter practices.[2] In particular, the act specifies that animals must be quickly rendered insensible to pain before they are slaughtered.

[1]Pub. L. No. 85-765, 72 Stat. 862 (1958).

[2]Pub. L. No. 95-445, 92 Stat. 1069 (1978). Among other things, the act amended sections 3 and 10 of the Federal Meat Inspection Act, 21 U.S.C. sections 603 and 610.

The Food Safety and Inspection Service (FSIS), within the U. S. Department of Agriculture (USDA), is responsible for enforcing the Humane Methods of Slaughter Act. FSIS inspection personnel are stationed at each federally inspected slaughter facility to examine every carcass to ensure that it is safe for human consumption. Although their responsibilities are primarily for food safety, these inspectors are also responsible for monitoring compliance with the act and the applicable regulations at slaughter facilities throughout the country. FSIS guidance states that when inspectors observe noncompliance with the act's provisions, they should document the incident in a noncompliance record.[3] Inspectors are also authorized to take enforcement action by temporarily shutting down parts of the plant's operations until management provides satisfactory assurances that the situation will be promptly remedied. In more serious cases, the agency may temporarily suspend plant operations by removing FSIS inspectors from a part of the facility or from the entire facility until the problem is corrected. Finally, the FSIS administrator can file a complaint to withdraw the grants of inspection from a facility, which prevents its products from entering interstate or foreign commerce. By law, slaughter facilities cannot slaughter and process animals for sale in commerce without federal inspectors present.[4]

In recent years, the Congress has taken various actions to strengthen USDA's resources and to better ensure that the agency enforces the humane handling and slaughter provisions of the act. In fiscal year 2001, the Congress earmarked funds for the agency to enhance humane slaughter practices.[5] In response, FSIS created the position of District Veterinary Medical Specialist (DVMS) in each of its districts. The DVMSs are the primary contacts for all humane handling and slaughter issues in each FSIS district office, and they are the liaisons between the district offices and headquarters on humane handling and slaughter issues. They are responsible for on-site coordination of nationally prescribed humane slaughter procedures and verification of humane handling activities, as well as dissemination of directives, notices, and other information related to the act. In fiscal year 2002, the Congress further directed that the Secretary of Agriculture should fully enforce the Humane Methods of

[3]Throughout this report, we use the terms "noncompliance" and "violation" interchangeably. This is consistent with FSIS regulations and directives.

[4]7 U.S.C. sections 603, 604.

[5]Pub. L. No. 107-20, 115 Stat. 155, 164 (2001).

Slaughter Act and report annually to the Congress on the number of violations and trends recorded by FSIS inspectors.[6] Fiscal year 2003 appropriations legislation included $5 million for additional inspection activities.[7] Also, in a recent congressional conference report for fiscal year 2003 appropriations, the conferees directed us to review and report to the appropriations committees on the scope and frequency of humane slaughter violations and to provide recommendations on the extent to which additional resources for inspection personnel, training, and other agency functions are needed to properly regulate slaughter facilities.[8]

In response to this congressional directive, and through subsequent discussions with your staff, we (1) analyzed the frequency and scope of humane handling and slaughter noncompliance incidents documented by FSIS inspectors, (2) analyzed FSIS actions to enforce compliance with humane handling and slaughter provisions, and (3) assessed the extent to which additional resources may be needed to ensure that humane handling and slaughter provisions are enforced. To perform our work, we obtained and analyzed all available FSIS records of noncompliance with humane handling and slaughter requirements between January 2001 and March 2003. We reviewed enforcement actions that the FSIS inspectors took between January 2001 and March 2003 and that FSIS district managers took between October 2001 and July 2003. To obtain information on resources dedicated to humane handling and slaughter oversight, we interviewed FSIS program officials and reviewed available workforce data. We also reviewed all of the completed DVMS summary reports that outline the officials' overall observations after each plant visit. To obtain their views on the adequacy of personnel and training resources, we conducted structured interviews with district managers, deputy district managers, and DVMSs in all 15 FSIS districts. Finally, we obtained the views of humane slaughter experts, industry association representatives, and animal welfare groups. We conducted our work between April 2003 and November 2003 in accordance with generally accepted government auditing standards. Appendix I describes our methodology in more detail.

[6]Farm Security and Rural Investment Act of 2002, Pub. L. 107-171, Section 10305 116 Stat. 134.

[7]Pub. L. No. 108-7, 117 Stat. 11, 22 (2003).

[8]H. Conf. Rep. No. 108-10 (2003).

Results in Brief

Incomplete and inconsistent FSIS inspection records made it difficult to determine the frequency and scope of humane handling and slaughter violations. Available FSIS records show that during the 28 months between January 2001 and March 2003, inspectors wrote 553 noncompliance records to document violations of the HMSA and the implementing regulations at 272 facilities across the United States. According to these inspection records, ineffective stunning, which does not quickly render animals insensible to pain as required by the act, was the most prevalent type of noncompliance. To a lesser extent, the records documented poor facility conditions that could lead to animal injury and failure to provide water to animals awaiting slaughter as other prevalent violations. However, in conducting this analysis, we found internal control problems that call into question the reliability of FSIS's records regarding compliance with the act. First, because the agency had not stored its noncompliance records in electronic form, it could not provide us with at least 44 additional records from the period between January 2001 and March 2003. In addition, almost half of the DVMSs with whom we spoke reported that inspectors did not always document noncompliance when they should have because they were unsure about regulatory requirements; for example, they were not sure if a violation was too minor to be documented. Second, the noncompliance records did not consistently document the scope and severity of violations. Inspectors are required to document HMSA noncompliance through narrative that includes the applicable statutory or regulatory provision, a concise description of the violation, and any other relevant evidence; but the records show that inspectors did not describe violations in a consistent manner. For example, while some noncompliance records provided detailed information on the causes of observed ineffective stunning and the number of animals impacted, other records only mentioned that ineffective stunning occurred but provided no additional details. Incomplete and inconsistent data can make it difficult for FSIS to accurately assess compliance with the act and to report the results to the Congress. Despite these data limitations, in its March 2003 report to the Congress, USDA indicated that during fiscal year 2002 "very few infractions were for actual inhumane treatment of the animals." Officials informed us that their analysis was based on a sample of approximately half of the noncompliance records available. In contrast, our analysis of all of the noncompliance records FSIS provided for fiscal year 2002 shows that one fourth of the 366 noncompliance incidents documented by inspectors, were for incidents of ineffective stunning—a violation that USDA characterized in its report to the Congress as "actual inhumane treatment." FSIS has made recent efforts to improve documentation,

including better tracking of documentation and new guidance to inspectors.

FSIS took inconsistent enforcement actions to address noncompliance with the HMSA. For example, we found that plant inspectors temporarily halted stunning operations in more than half of the cases involving ineffective stunning of a single animal, but in less than half of similar cases involving multiple animals. Half of the DVMSs we interviewed attributed the inconsistent enforcement actions to inspectors' inexperience, lack of clarity regarding their authority, or the misperception that certain violations are minor. We found similar inconsistencies at the district management level. District managers can decide to take the more serious enforcement action of withdrawing inspectors from the plant, thus suspending a plant's operations, when they are notified of serious violations. However, they lack clear criteria on when to do so, and this can lead to inconsistencies in enforcement. We found, for example, one case in which a district manager did not suspend plant operations after inspectors had issued 16 noncompliance records to a slaughter facility documenting the plant's failure to properly stun animals. In contrast, another facility's failure to provide access to water and to maintain acceptable pen conditions led to a suspension of operations. As a result, FSIS cannot ensure that humane slaughter requirements are consistently enforced across districts, undermining FSIS efforts to effectively enforce the act. In November 2003, FSIS issued guidance that should help inspectors determine when it is appropriate for them to take enforcement actions. However, the guidance is less explicit about when district actions are warranted. For example, the guidance does not identify thresholds at which repetitive instances of noncompliance at the same facility would require action by district officials.

FSIS does not have data on the number of inspectors devoted to compliance with the HMSA or on the amount of time that inspectors spend on humane handling and slaughter requirements. Without such information, FSIS cannot determine the appropriate number of inspectors for different sized plants or the number of inspectors needed overall to effectively enforce the act. FSIS headquarters and district officials believe that, for the most part, the current number of inspectors is sufficient to monitor and enforce humane handling and slaughter requirements. In particular, district officials believe that the present number of DVMSs is adequate to cover each district's HMSA responsibilities. However, the officials said that despite improvements made by the hands-on training provided by DVMSs, they remain concerned about inspectors' overall level of knowledge regarding HMSA requirements. When we discussed this

matter with FSIS headquarters officials, they said that, in addition to the new November 2003 directive that provides clearer guidance, the agency is currently taking steps to improve inspectors' knowledge. For example, the agency is developing scenarios for inspectors that will illustrate how to implement the HMSA requirements.

To help ensure adequate enforcement of the HMSA, we are recommending that the Secretary of Agriculture direct FSIS to (1) include in noncompliance records specific information on the type and cause of violations, (2) establish additional criteria for when districts are to take enforcement actions in cases of repetitive violations, (3) require that district offices and inspectors clearly document the basis for enforcement actions that they take in response to repetitive violations, (4) develop a mechanism for determining the level of resources that the agency devotes to humane handling and slaughter activities, (5) develop criteria for determining the appropriate level of inspection resources, and (6) periodically assess whether that level is sufficient to effectively enforce the act.

FSIS commented on a draft of this report and generally agreed with our findings and recommendations. FSIS also provided a number of specific comments, which we incorporated in the report as appropriate.

Background

The Congress passed the Humane Slaughter Act in 1958 in response to intense and broad-based public concerns about cruelty and abuse of livestock in meat-packing plants.[9] At that time, the Congress determined that using humane methods of slaughter prevented the needless suffering of livestock, resulted in safer and better working conditions for employees, and brought about improvements in products and economies of slaughter operations, among other benefits. The act established as U. S. policy that the handling and slaughtering of livestock should be carried out using humane methods. However, the act applied only to plants wishing to sell meat products to federal government agencies. In 1978, the Congress passed the HMSA, which amended the Federal Meat Inspection Act and extended the policy nationwide by requiring that all federally inspected slaughter establishments adopt humane handling and slaughter methods. The HMSA requires that animals be "rendered insensible to pain by a single blow or gunshot or an electrical, chemical or other means that is

[9]Pub. L. No. 85-765, 72 Stat. 862 (1958).

rapid and effective, before being shackled, hoisted, thrown, cast, or cut."[10] The act also provides for a ritual slaughter exemption that allows the slaughter of animals in accordance with the ritual requirements of any faith "that prescribes a method of slaughter whereby the animal suffers loss of consciousness by anemia of the brain caused by the simultaneous and instantaneous severance of the carotid arteries with a sharp instrument and handling in connection with such slaughtering."[11]

FSIS has issued regulations and directives to enforce the act. Important requirements of these regulations and guidance include the following:

- All animals must be effectively stunned before they are slaughtered. Stunning is effective when the animal feels no pain, is rendered instantly unconscious, and remains unconscious until slaughtered;
- Dragging of disabled and other animals unable to move, while conscious, is prohibited;
- All holding pens and driveways and ramps must be designed, built, and maintained to prevent injury to livestock;
- Livestock should be provided with water in holding pens, and food if held for more than 24 hours;
- The use of electrical prods and other devices to move livestock must not be excessive and should be used as little as possible.

[10]7 U.S.C. Section 1902 (a). The act applies to those establishments processing cattle, calves, horses, mules, sheep, goats, pigs, and other equines. It does not apply to poultry, bison, reindeer, and catalo.

[11]7 U.S.C. Section 1902 (b).

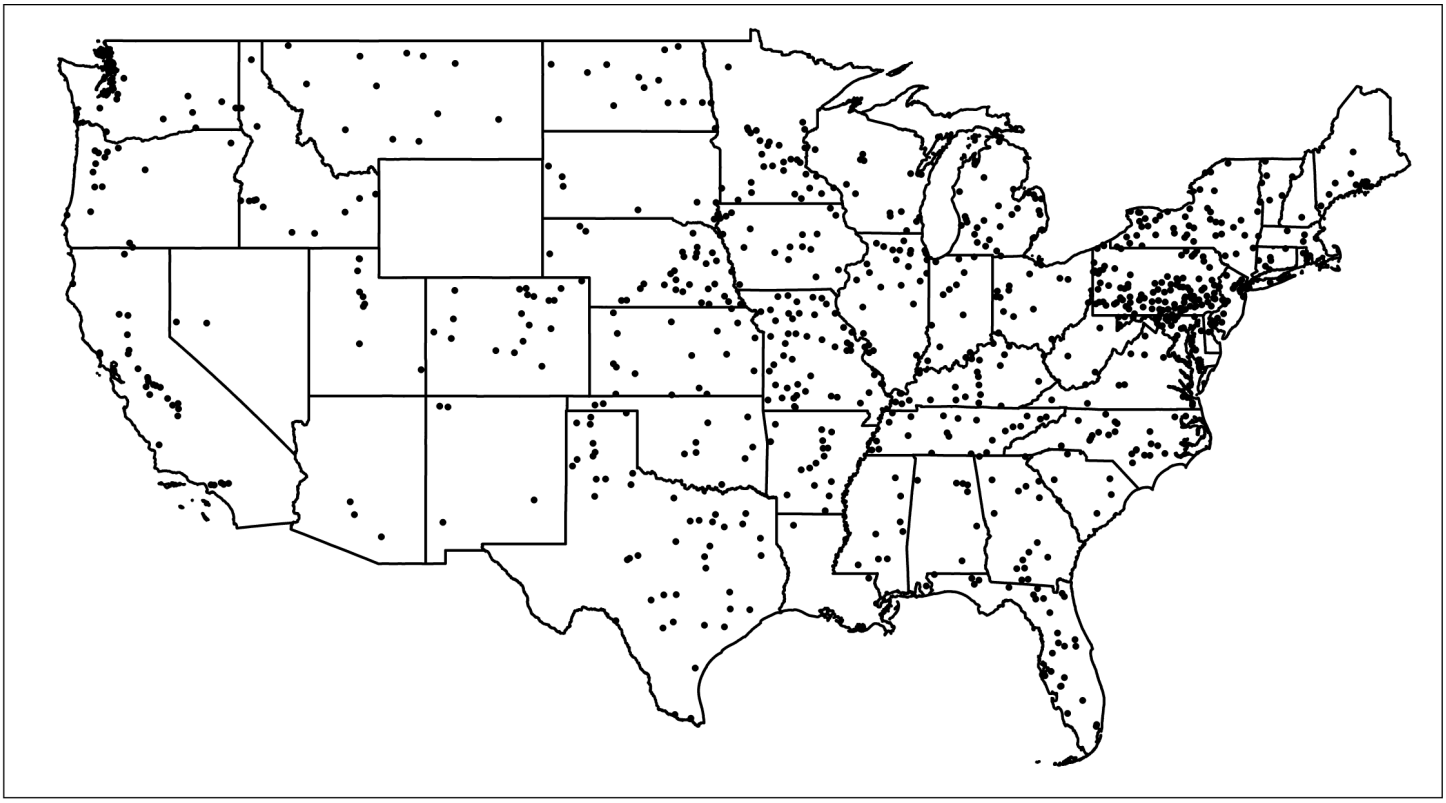
Figure 1 illustrates two separate stunning efforts—one of a cow being stunned with a mechanical captive bolt and another of a sheep being stunned with an electrical stunner.

Figure 1: Stunning of Animals

Source: Food Safety and Inspection Service, USDA.

As of October 2002, 918 plants were covered by the HMSA in the United States. Figure 2 shows the distribution of these plants.

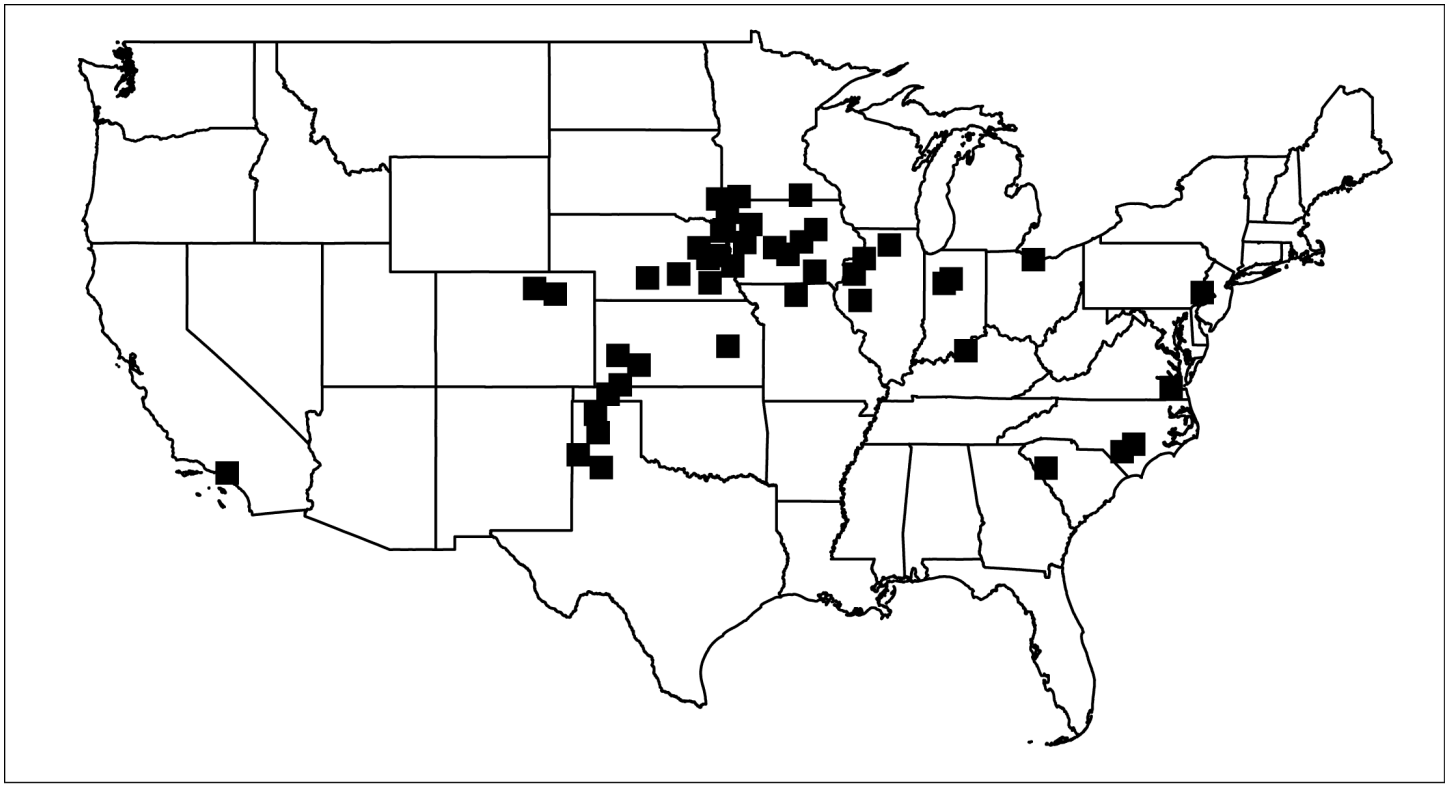
Figure 2: Location of Plants Covered by the HMSA, as of October 2002



Source: GAO graphic based on FSIS data.

While the plants are concentrated heavily in the Northeast, they tend to be smaller plants. The 49 large producers, who account for approximately 80 percent of total production of meat in the country during fiscal year 2002, are mainly located in the Midwest, as figure 3 illustrates.

Figure 3: Location of Plants Covered by the HMSA That Accounted for 80 Percent of U.S. Meat Production during Fiscal Year 2002



Source: GAO graphic based on FSIS data.

FSIS is responsible for ensuring compliance with the Humane Methods of Slaughter Act.[12] The FSIS is organized into 15 district offices that include: Alameda, Albany, Atlanta, Beltsville, Boulder, Chicago, Dallas, Des Moines, Jackson, Lawrence, Madison, Minneapolis, Philadelphia, Raleigh, and Springdale. Table 1 shows the states, number of plants, and type of plant, by size, for each FSIS district.[13]

[12]The FSIS is also responsible for ensuring the safety of most meat, poultry, and processed egg products.

[13]FSIS classifies plants according to their size: large plants—those with 500 or more employees, small plants—those with 10 to 499 employees, and very small plants—those with fewer than 10 employees, or annual sales of less than $2.5 million.

Table 1: Number of States and Slaughter Plants Covered by Each FSIS District, as of October 2002

		Plants covered by the HMSA			
FSIS District	**States Covered**	**Very small plants**	**Small plants**	**Large plants**	**Total plants[a]**
Alameda	CA	4	25	3	**32**
Albany	CT,ME,MA,NH,NY,RI,VT	71	4	0	**75**
Atlanta	FL, GA, PR, VI	50	12	0	**62**
Beltsville	DE, D.C., MD, VA, WV	26	13	2	**41**
Boulder	AZ, CO, NM, NV, UT, AK, AS, GU, HI, ID, OR, WA	79	15	8	**102**
Chicago	IL, IN, OH	25	28	6	**59**
Dallas	TX	17	27	4	**48**
Des Moines	IA, NE	23	18	18	**59**
Jackson	AL, MS, TN	25	11	2	**38**
Lawrence	KS, MO	52	8	9	**69**
Madison	MI, WI	33	10	4	**47**
Minneapolis	MN, MT, ND, SD, WY	26	32	7	**65**
Philadelphia	PA, NJ	112	23	3	**139**
Raleigh	NC, SC, KY	36	14	4	**54**
Springdale	AR, LA, OK	20	7	1	**28**
Total		**599**	**247**	**71**	**918**

Source: GAO presentation of FSIS data.

[a]FSIS did not provide size information for one plant, so the total number of plants under the three size categories does not equal 918.

In 2002, FSIS employed about 7,600 inspectors at red-meat plants and poultry facilities to inspect each carcass after it is slaughtered to ensure that it is safe for human consumption.[14] Inspectors include at least one veterinarian assigned to each plant, who is required to evaluate the general health of animals before they are slaughtered, and Consumer Safety Inspectors, who are not veterinarians and have varying inspection responsibilities throughout the plant.[15] FSIS officials maintain that as they carry out their food safety and other activities, all inspectors are responsible for monitoring compliance with humane handling and

[14]FSIS did not provide us with the specific number of inspectors that are assigned to meat slaughter facilities.

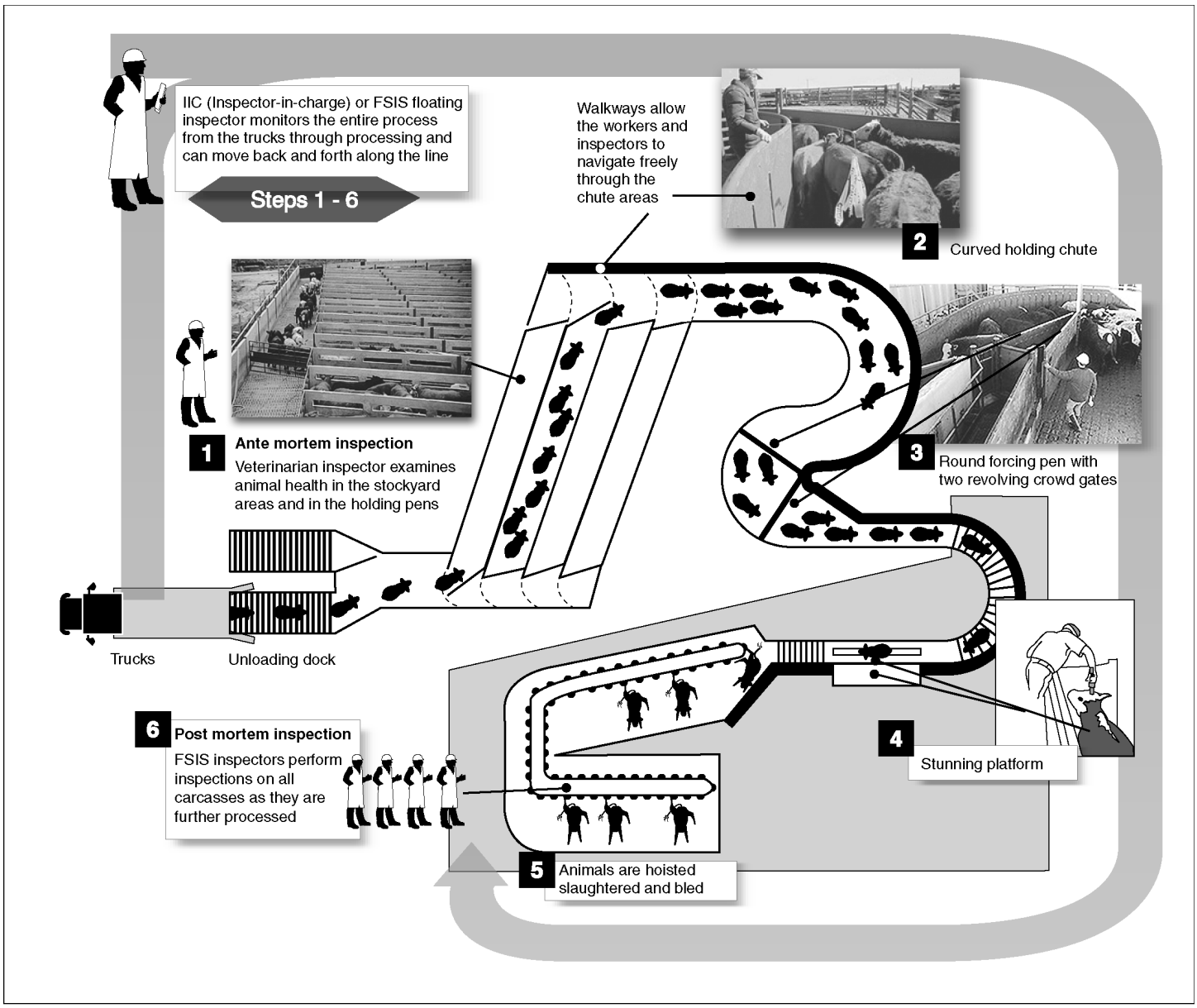
[15]Throughout this report, we refer to veterinarians and Consumer Safety Inspectors as "inspectors."

slaughter requirements at plants that are covered by the HMSA from the time livestock come into the custody of the plant to the time of slaughter. According to the FSIS, while the HMSA requires inspectors to observe the entire handling and slaughter process, inspectors do not have to observe all animals all the time for HMSA compliance. In contrast, the Federal Meat Inspection Act requires that each animal be examined prior to slaughter and each carcass be individually inspected after slaughter to ensure that the meat is safe for human consumption.[16]

Typically, animals arrive on plant premises, are unloaded from trucks, and then are held in the stockyard area where FSIS inspectors perform the required antemortem inspection. During this inspection, disabled animals are separated from the herd. Animals are then moved through curved holding chutes and forcing pens onto the stunning platform, where they are stunned before being slaughtered. Figure 4 illustrates the areas in a typical, mid-size plant from which inspectors can observe for HMSA compliance, although inspectors are not always present in all areas.

[16]7 U.S.C. sections 603, 604.

Figure 4: Location of Inspectors Observing Compliance with the HMSA at a Typical Mid-Size Plant



Source: GAO graphic based on GAO analysis of information provided by FSIS and Dr. Temple Grandin a humane handling expert. Photographs in this figure provided by Dr. Temple Grandin.

When inspectors observe a violation of the HMSA or its implementing regulations, they are required to notify plant management and document, with a noncompliance record, the violation and the actions taken by the

plant to correct it. Inspectors can document more than one violation, and different types of violations, in a single noncompliance record. According to FSIS guidance, each noncompliance record should include the following information:[17]

- A unique record number,
- The date of the violation,
- The plant identification number,
- Humane handling regulations applicable to the incident reported,
- A written description of the violation,
- The name of plant personnel notified of the violation, and
- The plant management's written response stating both the immediate action to correct the violation and any subsequent action to prevent its recurrence.

In response to HMSA noncompliance, FSIS can take a number of enforcement actions—actions that impose restrictions on a facility's ability to operate. These actions include the following:

- For less serious violations of the HMSA, inspectors at a facility can issue a "reject tag" to quickly respond to violations that management can readily address. Inspectors physically place these reject tags on a piece of equipment or an area of the plant. This action temporarily prohibits the use of a particular piece of equipment or area of the facility until the violation is corrected.
- For more serious violations, the district manager can suspend inspection until the violation or violations are addressed.[18] This action, which removes FSIS inspectors from facility premises (or part of the facility), suspends operations at the facility (or part of the facility) because slaughter facilities may not operate without federal inspectors present.

[17]FSIS Directive 5001.1, Revision 1: Verifying an Establishment's Food Safety System, May 21, 2003.

[18]If there is an egregious situation of inhumane handling and slaughter, the inspector in charge may also immediately suspend inspection and immediately notify USDA's district office for prompt documentation of the suspension action.

- In cases where a plant fails to respond to FSIS concerns about repeated and/or serious violations, the administrator of FSIS can withdraw inspection. This enforcement action removes the grant of inspection from a facility, which prevents the facility's products from entering interstate and foreign commerce. The facility must reapply for and be awarded a grant of inspection before it may resume operations. This action is rarely used.

Agency supplemental appropriations in 2001 included $3 million, of which no less than $1 million was to be used to enhance the agency's humane slaughter practices.[19] USDA used $1.25 million of these funds to hire 17 DVMSs to serve as program coordinators for all humane handling issues. By March 2002, a DVMS was at work in each of the FSIS district offices. The DVMSs, who received extensive training on humane handling and slaughter techniques and related inspection procedures, are the primary contacts for inspectors in each FSIS district office and the liaisons between the district offices and headquarters on humane handling and slaughter compliance. As of May 2003, the 17 DVMSs had visited 576, or about 63 percent, of 918 plants covered by the HMSA. Thirteen of the 16 DVMSs we interviewed said that they had visited all or almost all of their assigned plants at least once. According to these 16 DVMSs, when they came on board, all of them participated in a number of district activities that went beyond the scope of humane handling and slaughter of animals, such as biosecurity and food safety issues. For example, nine DVMSs reported that these activities took 40 to 50 percent of their time. In March 2003, however, an FSIS memorandum directed all but five of the DVMSs to only perform humane handling activities.[20] As a result, the activities of 12 DVMSs changed, and their current focus is solely the implementation of the HMSA.

Despite these actions, concerns about the treatment of animals at U.S. slaughterhouses persist. For example, two animal welfare groups, the Humane Society of the United States and the Humane Farming Association, believe that enforcement of the act could be improved. These groups maintain that more continuous monitoring of compliance with the

[19]Pub. L. No. 107-20 (2001).

[20]FSIS determined the DVMSs who would only perform humane handling and slaughter related work after sending a survey to all DVMSs asking them if they would be interested in performing only HMSA work or if they would like to perform other duties. The other five DVMSs still have humane handling responsibilities, but can also assist with food safety and food security.

HMSA is necessary. Also, according to the Humane Society, USDA oversight is especially critical at facilities that specialize in disabled animals and old dairy cattle, as well as those with slaughter production lines that operate at high speeds.

Conversely, meat industry associations we contacted maintain that the way animals are handled and slaughtered has improved in response to pressure from customers of fast food restaurants and industry audits of slaughter establishments. When Dr. Temple Grandin, a renowned animal science authority, conducted a survey of 24 slaughterhouses in 1996 at USDA's request, she found that only 36 percent were able to stun 95 percent of the cattle on the first try.[21] When she repeated the survey in 2002, this time visiting 80 different plants, she found that 94 percent were able to do so.[22] While Dr. Grandin's second survey shows a significant improvement, it still indicates that hundreds of thousands of animals were not stunned on the first try, as required by the act. Thus, there may be undetected instances of inhumane treatment. Dr. Grandin believes that effectively stunning animals on the first try 100 percent of the time is unachievable—that is why she proposed an objective scoring method as an alternative. Objective scoring uses definite thresholds for various types of humane handling and slaughter incidents and provides a means to promote consistency within and across slaughter establishments. When we discussed the objective scoring approach with FSIS officials, they pointed out that the approach may have merit, particularly as a monitoring tool. However, the officials pointed out that the HMSA requires that animals be effectively stunned on the first try with one single blow or gunshot. Therefore, objective scoring would not be an appropriate regulatory tool because it allows for less than 100 percent effectiveness in stunning. That is, under the objective scoring method, a plant's humane slaughter procedures would be considered adequate if, for example, 95 percent of the animals were stunned with one single blow or gunshot on the first try.

[21]Survey of Stunning and Handling in Federally Inspected Beef, Veal, Pork, and Sheep Slaughter Plants; Agricultural Research Service, USDA. 3602-20-00, January 7, 1997.

[22]2002 Restaurant Audits of Stunning and Handling in Federally Inspected Beef and Pork Slaughter Plants; http://www.grandin.com/survey/2002.restaurant.audits.html.

The Most Prevalent Violation Was Ineffective Stunning, but the Overall Frequency and Scope of Humane Slaughter Violations Is Difficult to Determine

Our ability to assess the frequency and scope of noncompliance with the HMSA was limited because FSIS could not provide us with documentation for all of the noncompliance incidents and because the documentation provided was not always complete and consistent. The 553 noncompliance records that the agency provided to us show that, between January 2001 and March 2003, there were 675 HMSA violations at 272 facilities—approximately 30 percent of the more than 900 slaughter facilities in the United States. The most prevalent noncompliance documented was the ineffective stunning of animals, in many cases resulting in a conscious animal reaching slaughter. FSIS has made recent efforts to improve documentation—including steps to improve inspector awareness of documentation requirements, better tracking of noncompliance documents, and issuing new HMSA guidance in November 2003.

Inspection Records Were Incomplete and Inconsistent, Making It Difficult to Determine the Frequency and Scope of Noncompliance

The universe of inspection records that FSIS provided to us was incomplete, making it difficult to assess the frequency of noncompliance with the HMSA. FSIS provided us with 553 documented records of noncompliance with the act and the implementing regulations covering the 28-month period from January 2001 through March 2003. However, we found internal control problems that call into question the reliability of the information in the FSIS records regarding HMSA compliance. Our analysis indicates that the extent of noncompliance with the HMSA and the implementing regulations is likely to be greater than what is reflected in the 553 records for several reasons. First, according to FSIS officials, inspectors wrote at least 44 additional noncompliance records during this period—January 2001 to March 2003. However, while their recordkeeping system indicates that these noncompliance records exist, the agency could not locate the actual noncompliance documents for our review. The officials said that the records were not electronically stored and that they would rather improve tracking of such documentation in the future than attempt to locate the missing records. This internal control problem is being addressed, according to FSIS officials, because the agency has transitioned to a system that stores all noncompliance records electronically. Second, according to several DVMSs' observations during their in-plant evaluations of humane slaughter activities, the frequency of noncompliance with the act is likely to be underreported. At least 7 of the 16 DVMSs we spoke with believe that inspectors have not always documented violations in noncompliance records when they should. The DVMSs said that some inspectors were not always aware of regulatory requirements and may have felt documentation was unnecessary because they either determined the offense was not serious or that it could be easily remedied. The principal guidance provided to inspectors—known as

the "Rules of Practice"—does not specifically instruct inspectors on whether to document a violation if that violation does not result in an enforcement action and leaves it to the discretion of the inspector when an enforcement action is called for.[23] However, recently, FSIS issued a directive that requires inspectors to document all violations in noncompliance records. Third, because inspectors do not engage in continuous animal by animal observation for humane handling and slaughter compliance purposes, violations may occur that are not recorded by inspectors.

Our ability to determine the overall scope and severity of humane slaughter violations was further limited by the inconsistent way inspectors document violations in noncompliance records. Inspectors describe noncompliances by narrative—for example, by specifying whether the violation involved ineffective stunning or lack of access to water. Our analysis of noncompliance records related to HMSA showed that inspectors do not describe violations in a consistent manner and their narratives can vary substantially. For example, while some noncompliance records provide detailed information on the observed causes of ineffective stunning and the exact number of animals impacted, other records only mention that ineffective stunning occurred. Additionally, because narrative is the only way an inspector can describe the HMSA noncompliance, the agency cannot easily extract and analyze information. Inspectors do include a code so that violations related to HMSA can be distinguished from violations related to food safety, but it is a universal code for all HMSA violations; and it does not provide any additional information about the type or severity of the violation.[24] As a result, it is difficult for FSIS to quantify, interpret, and report the data related to the scope and severity of documented instances of noncompliance.

[23]FSIS issued its "Rules of Practice" in September 5, 2001, in FSIS Notice 36-01 to ensure that all inspection program personnel are knowledgeable about the enforcement actions that the agency may take, the circumstances under which the various types of enforcement actions are appropriate and can be taken, and the procedures that the agency will follow in doing so. According to FSIS, the rules of practice provide a key link between inspection and enforcement activities. The guidance elaborates on the regulatory enforcement actions described at 9 C.F.R. pt. 500. In November 2003, FSIS issued a new directive to its inspection personnel that provides clearer direction regarding enforcement.

[24]This contrasts with the dozens of ways that inspectors can classify different types of food safety violations ranging from sanitation procedures to labeling accuracy.

Incomplete and inconsistent data can make it difficult for FSIS to adequately assess how well HMSA standards are being enforced and to report those results to the Congress and other interested parties. In 2002 legislation, the Congress stated that USDA should track violations of the HMSA and report the results and relevant trends annually to the Congress. In its March 2003 report to the Congress,[25] USDA reported that during fiscal year 2002 it documented 379 noncompliance incidents out of 70,403 times when inspectors made observations for compliance with the HMSA. This averages to approximately six observations for HMSA compliance per month, or less than two observations per week, for each the 918 plants that are covered by the act. By analyzing approximately half of the noncompliance records available for fiscal year 2002, FSIS concluded in the report that the majority of these violations were related to facility conditions (e.g., slippery flooring, large gap between pen bars, etc.) and animals provisions (failure to provide water or food). It then concluded that "very few infractions were for actual inhumane treatment of the animals (e.g. dragging or ineffective stunning)."

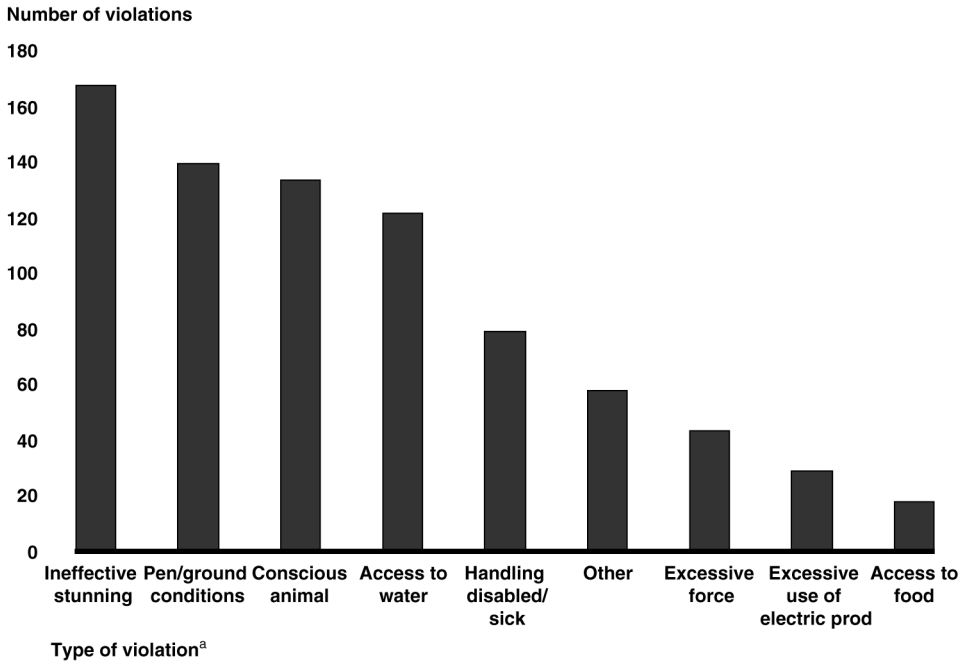
However, our evaluation of USDA's data showed otherwise. We analyzed all the available noncompliance records for fiscal year 2002 and identified 366 noncompliance incidents, of which 92 (one-fourth) were for ineffective stunning—a violation that USDA characterizes as "actual inhumane treatment." Likely reasons for the discrepancy between our analysis and USDA's report are that we analyzed all available records, while FSIS officials told us that USDA's analysis was based on a subjectively selected sample of approximately half of the available records. Additionally, FSIS's violation documentation system—specifically its sole reliance on narrative to document HMSA violations—required both FSIS officials and us to interpret the inspectors' narratives to identify the number and types of violations identified in the documentation. The FSIS official who conducted the analysis told us that upon close examination of these narratives, some instances that appear to be cases of direct animal injury in fact were not and would therefore not be considered by the agency to be actual inhumane treatment of animals.[26]

[25]See Food Safety and Inspection Service, Humane Handling and Slaughter Enforcement Activities, Report to Congress, March 2003.

[26]USDA only provided us with four examples of cases where they did not consider the reported violation to have caused direct injury to animals, therefore resulting in actual inhumane treatment of animals.

We found similar results when we analyzed noncompliance records over a longer period—January 2001 to March 2003. During this period, FSIS produced 553 noncompliance records indicating some type of noncompliance with the HMSA. These noncompliance records were written for 272 plants, or about 30 percent, of the 918 plants that were covered by the act. Our analysis of these noncompliance records identified 675 violations. Of these violations, 167 were for ineffective stunning, meaning animals were not quickly rendered insensible to pain as required by the HMSA and the implementing regulations. We found that over 67 percent of the 167 ineffective stunning violations resulted in conscious animals being slaughtered. Other less prevalent violations included facility conditions that could lead to animal injury and lack of access to water. Our interviews with the DVMSs support these data. Among the 16 DVMSs we spoke with, the most prevalent violations they reported observing when they visited plants to evaluate humane handling and slaughter practices were ineffective stunning, poor facility conditions, and lack of access to water. Figure 5 summarizes the types of violations we identified, using FSIS documentation.

Figure 5: Violations Documented in Noncompliance Records between January 2001 and March 2003



Source: GAO's analysis of FSIS noncompliance records.

Note: Our analysis of the 553 noncompliance records identified 675 violations. A noncompliance record can include more than one violation.

[a]The ineffective stunning and conscious animals columns in the figure are not mutually exclusive. Specifically, in 112 cases, ineffective stunning resulted in one or more conscious animals moving to slaughter. In 55 cases, ineffective stunning was documented but not that a conscious animal was slaughtered. This could happen if, for example, multiple stunning efforts were required to render the animal unconscious. In 21 cases, inspectors noted that an animal was observed to be conscious at slaughter, without indicating ineffective stunning. This could happen if an animal regained consciousness after being effectively stunned.

FSIS Is Taking Steps to Improve Inspector Awareness of Documentation Requirements and Introduced Changes in Its Documentation Process

FSIS has recently taken steps to improve inspector awareness of documentation requirements and to correct the limitations in its inspection documentation process. According to DVMSs and other FSIS district officials with whom we spoke, as the DVMSs began playing an active role in working with inspectors at plants covered by the HMSA, the inspectors' level of knowledge regarding interpreting and documenting noncompliance has improved. In particular, DVMSs told us that inspectors are becoming more aware of the need to document noncompliance incidents that previously may have been considered to be too minor to document or may not have been considered a violation at all. As a result, the number of documented records for noncompliance incidents increased

from January 2001 through March 2003. For example, in the first quarter of fiscal year 2002, FSIS inspectors issued 56 noncompliance records documenting HMSA violations. This number increased to 134 in the first quarter of fiscal year 2003. Similarly, the number of noncompliance incidents documenting relatively minor violations increased as well. For example, during the same time frames, documented incidents for facility conditions that could cause injury to animals prior to slaughter increased from 5 to 40, and documented incidents of lack of access to water increased from 9 to 37. The DVMSs attributed the increase in part to the enhanced awareness of humane handling and noncompliance documentation requirements on the part of the inspectors.

Additionally, FSIS officials told us that the introduction of a humane handling procedure code in its Performance Based Inspection System (the computer-based system it uses to track compliance with all FSIS regulations), which took effect in October 2001, should help FSIS better track noncompliance records that document HMSA violations. While this change may address the agency's internal control problems regarding record maintenance, it will not, as we discussed earlier, provide sufficient data on the type of HMSA violations or make it easier for the agency to quantify, interpret, and report the data related to the scope and severity of the documented noncompliances.

FSIS also released a new directive, "Humane Handling and Slaughter of Livestock," in November 2003.[27] This directive also provides additional guidance and informs inspectors on many aspects of HMSA compliance. Importantly, the directive specifically instructs inspectors to document all violations of the HMSA and implementing regulations, regardless of the severity of the violation or whether an enforcement action is called for.

[27]FSIS Directive 6900.2, "Humane Handling and Slaughter of Livestock," November 25, 2003. This directive informs inspectors of the requirements, verification activities, and enforcement actions for ensuring that the handling and slaughter of livestock, including the slaughter of livestock by religious ritual methods, is humane. The directive also explains how inspectors should approach these activities. Specifically, the directive leads the reader through the existing regulatory requirements and explains in simple, easy to read and understand language how inspection program personnel should verify compliance with each of these regulations and what actions they should take if there is noncompliance.

FSIS Took Inconsistent Enforcement Actions to Address Noncompliance

Our review of noncompliance records indicates that FSIS has taken inconsistent enforcement actions in response to violations of the Humane Methods of Slaughter Act and applicable regulations. Inspectors stationed in slaughter plants have not consistently issued "reject tags"—the enforcement action used for less serious violations—to temporarily stop a plant from using a piece of equipment or an area of the plant until the violation is corrected or appropriate actions are taken to prevent recurrence of the incident. Also, district managers were not using consistent criteria to suspend plant operations when more serious violations occurred.

Records Show Inspectors Took Inconsistent Enforcement Actions in Response to Noncompliance

FSIS inspectors took enforcement actions in almost 40 percent of the documented noncompliance cases between January 2001 and March 2003. FSIS officials and guidance indicate that it is not appropriate to take an enforcement action for all violations. For example, while stunning an animal more than once is clearly an instance of noncompliance with humane handling and slaughter requirements, an inspector may not feel that an enforcement action is necessary if a plant employee stuns an animal more than once because of certain unavoidable conditions, such as an animal moving its head just prior to being stunned.

Nevertheless, our analysis of the noncompliance records indicates that inspectors are not consistently taking enforcement actions. Specifically, they are not consistently using reject tags.[28] The records show that serious violations appear to have taken place—violations that involved multiple instances of ineffective stunning or several animals being conscious during slaughter—but that inspectors did not take any enforcement action. For example, our analysis of enforcement actions taken in the 167 instances of ineffective stunning shows that inspectors used reject tags to temporarily suspend stunning operations in more than half of the 86 cases involving ineffective stunning of a single animal but in less than half of the 79 cases that involved multiple animals.[29] In one particular incident, the inspector who prepared the noncompliance record wrote that he observed six

[28]From January 2001 through March 2003, inspectors issued reject tags to temporarily interrupt the use of equipment or facilities or to slow down or stop production lines 214 times. The most prevalent reasons for these reject tags were ineffective stunning and conscious animals observed being slaughtered.

[29]While our analysis included 167 instances of ineffective stunning, we could not determine from the documentation provided how many animals were impacted in two of these cases. Therefore, this analysis is based on 165 incidents.

conscious animals being slaughtered during a period of 5 minutes, and he considered the incident unacceptable; however, he did not take enforcement action. This inaction was in sharp contrast to many other cases where inspectors took enforcement actions, for relatively less serious violations, such as lack of access to water.

According to half of the 16 DVMSs we interviewed, inspectors often do not take enforcement action when they should. DVMSs attribute this inconsistent use of enforcement action to several factors. For example, some inspectors are hesitant to issue reject tags for ineffectively stunned animals because they are not veterinarians and are unsure about what signs indicate that an animal is still conscious after it has been stunned. They also noted that some inspectors lack the experience or knowledge regarding their authority to issue reject tags or simply misinterpret routine incidents—even though they are violations—as not warranting enforcement actions. FSIS did not provide data for the level of experience of inspectors. However, as part of the inspectors' new hire program, FSIS includes a module on humane handling issues; inspectors have no other formal training on the HMSA and its enforcement. Most of the deputy district managers and half of the DVMSs noted that an overall lack of knowledge among inspectors about how they should respond to an observed noncompliance has been a problem in enforcing the HMSA.

FSIS has begun to address the problem of unclear guidance by issuing a new humane handling and slaughter directive on November 25, 2003. This directive, for the first time, clearly states that inspectors are obligated to take enforcement actions when they observe inhumane treatment whether or not animal injury has resulted. Specifically, the directive states that inspectors must take action if either (1) a violation of humane handling and slaughter requirements has occurred that is not immediately causing injury or inhumane treatment of animals and the establishment has not taken appropriate preventative actions or (2) a violation of HMSA requirements has occurred and animals are being injured or treated inhumanely. Also, FSIS officials said that they have recently held meetings with the DVMSs and district officials that focused on making enforcement more consistent.

District Managers Have Also Taken Inconsistent Enforcement Actions

In addition to the enforcement actions available to inspectors stationed at slaughter facilities, district managers may suspend the operations of an entire facility, or part of the facility, by removing the inspectors from the plant. Since FSIS inspectors must be present during slaughter operations, this effectively shuts down a facility. This enforcement action is more

serious than the reject tags that inspectors can use and may be taken by district managers in the event of serious or repetitive violations. Between October 2001 and July 2003, district managers issued eight suspensions at seven slaughter plants that directly involved HMSA violations. According to FSIS, seven of the suspensions were issued in response to incidents involving the physical treatment of animals—four in response to inappropriate stunning or conscious animals observed at slaughter, two in response to the mistreatment of disabled animals, and one in response to excessive use of electric prods and force. One suspension was issued in response to facility conditions (a protruding fence board that was pointing toward the animals and could cause injury) and lack of access to water. In addition, during the same period, FSIS districts issued four letters to plants to inform them that if corrective actions were not taken to prevent recurrence of noncompliance incidents, the districts would proceed with suspension action.

Our analysis of the 553 noncompliance records indicated that the severity and repetitiveness of the violations does not necessarily result in consistent enforcement actions by district managers. For example, in one case, inspectors had prepared 16 noncompliance records, all related to the ineffective stunning of animals. However, the district manager did not take enforcement action because, as he explained, the 16 incidents were not triggered by the same factor; if they had been, he said he would have suspended the plant. This contrasts with the opinion of another district manager who, commenting on this same situation, said that a case of so many related and relatively serious incidents is a definite candidate for a suspension.

District managers said that they identify facilities for suspension by reviewing the noncompliance records and looking for "red-flags"—specifically, cases of serious and/or repetitive incidents of inhumane treatment of animals. While FSIS guidance stipulates that district level enforcement actions, such as suspensions, are appropriate when facilities have been unable to implement corrective and preventive actions in response to previously identified violations, the guidance does not contain suggested thresholds or criteria on when district actions are appropriate. More specifically, the guidance does not address how many repetitive instances of noncompliance should warrant district level enforcement actions. In the absence of uniform criteria, these enforcement decisions are likely to be inconsistent across FSIS districts, undermining FSIS' efforts to effectively enforce the act.

While the November 2003 directive provides some additional guidance on when suspensions are an appropriate response to multiple violations with the same or related cause, it does not provide any information on the number of related violations that would warrant a suspension. For example, in deciding whether a suspension is warranted, the directive states that district officials should consider the amount of time between violations—not the number of repeat violations—taken by the plant. FSIS officials noted that they have recently held meetings to emphasize consistent enforcement and discussed the issue at the October 2003 National Supervisory Conference attended by over 200 agency field supervisors.

FSIS Data on Inspection Resources Devoted to Overseeing Humane Handling and Slaughter Requirements Are Inadequate

Because FSIS does not have adequate data on the number of inspectors responsible for enforcing the HMSA or the actual time they spend on humane handling and slaughter requirements—nor other information, such as criteria to determine the appropriate number of inspectors for different sized plants—it is difficult to determine if the number of inspectors is adequate to effectively enforce the HMSA. However, FSIS headquarters and district officials believe that, for the most part, personnel resources dedicated to monitoring and enforcing humane handling and slaughter requirements are adequate. District officials believe that the present number of DVMSs is adequate to cover each district's HMSA responsibilities. The DVMSs are the primary contacts for inspectors in each FSIS district office and the liaisons between the district offices and headquarters on humane handling and slaughter issues. They are responsible for on-site coordination of nationally prescribed humane slaughter procedures and verification of humane handling activities, as well as dissemination of directives, notices, and other information related to the act. Fifteen districts have one DVMS and two districts, Boulder and Chicago, have two DVMSs each.[30] According to FSIS district officials, the 17 DVMSs are sufficient to oversee humane handling and slaughter activities in each district.

[30]This was the result of an FSIS realignment of its district offices. When USDA introduced the DVMS position, it assigned one DVMS to each of its 17 districts. In May 2002, an organizational realignment consolidated FSIS's 17 district offices into 15. In the realignment, the Pickerington, Ohio, office became a satellite office in the Chicago district, and the Salem, Oregon, office became a satellite office in the Boulder, Colorado, district. As a result, the Chicago and Boulder districts now have two DVMSs each.

FSIS officials could not, however, provide us with quantitative data on the actual time in-plant inspectors spend enforcing HMSA or other quantitative data from which we could assess the adequacy of in-plant inspection resources dedicated to humane handling and slaughter. Without this basic information, it is difficult to determine with any degree of certainty or precision if the number of inspectors is adequate to effectively enforce the HMSA. Also, without this data, FSIS cannot determine the appropriate number of inspectors for different sized plants or the adequate number of inspectors overall to effectively enforce the act. FSIS recently conducted an analysis showing that inspectors spent an estimated 132,405 hours, or 63 full-time equivalents, on humane handling and slaughter activities in fiscal year 2003. To come up with this estimate, the agency asked the DVMSs to estimate the number of hours that inspectors spent observing humane handling, per shift per plant in their districts. The DVMSs aggregated this information to determine how many total hours, per plant per year, were spent on humane handing and slaughter. Additionally, FSIS officials said they have a pilot program in place to track hours spent enforcing the HMSA. However, without additional information, such as criteria to determine the appropriate number of inspectors for different sized plants, the agency has insufficient information to make good decisions regarding how to allocate inspectors, and we could not conclusively determine whether additional in-plant inspectors are needed to ensure compliance with the HMSA.

Nevertheless, discussions with district officials suggest that additional resources devoted solely to enforcing the HMSA are not needed, but that additional inspectors who could conduct both food safety and humane handling activities would be beneficial. District managers and their deputies were in general agreement that there is no need for additional inspectors whose sole responsibility would be to observe for compliance with the HMSA. Five of the 29 district officials we spoke with who disagreed with this position told us that dedicated HMSA inspectors would be beneficial, primarily at larger plants only, or to supplement and follow up on the DVMSs' work when DVMSs are not present at a plant. However, almost 40 percent of the district managers and their deputies reported a general need for additional inspectors—inspectors responsible for both humane handling and food safety. They noted that filling current vacancies and/or hiring more relief inspectors to cover for vacations and other expected and unexpected leave would benefit HMSA enforcement. Several officials said this would be true particularly in larger plants where the size and configuration of the facility make it difficult for inspectors to effectively monitor humane handling and food safety compliance at the same time.

While stating that personnel resources for overseeing handling and slaughter requirements appear overall adequate, district officials expressed some dissatisfaction with the inspectors' overall level of knowledge about humane handling and slaughter requirements. According to 17 of the 29 district officials and at least 9 of the 16 DVMSs we interviewed, despite improvements made by the hands-on training that DVMSs provided inspectors, additional training of inspectors would improve the agency's ability to properly enforce the HMSA. Additionally, 14 DVMSs said that not all inspectors are fully knowledgeable about the requirements of the HMSA or the implementing regulations—including not being aware that certain actions are violations of the HMSA, or what their authority and obligations are when a violation has been observed. FSIS officials also believe that inspector knowledge needs to be improved, and they said that they are committed to doing this through additional training and other efforts. We agree that this is a reasonable first step—improving existing personnel's knowledge—before making decisions about the need for additional resources. Accordingly, we are not making a recommendation that FSIS provide additional training.

When we discussed this matter with senior FSIS officials, they said that they are currently taking steps to improve inspectors' knowledge. As a first step, with the assistance of the DVMSs, FSIS is developing a survey of veterinarians' and other supervisory inspectors' overall training needs, including needs in the area of humane handling and slaughter.[31] Additionally, the agency's November 2003 directive consolidates many HMSA requirements into a single directive, making it easier for inspectors to understand and interpret the requirements. DVMSs are also developing scenarios that will illustrate to inspectors how to implement the HMSA requirements and help them better understand their job function as it relates to the act. These scenarios are distributed in the form of a monthly report (Humane Interactive Knowledge Exchange—HIKE) that FSIS employees will be able to access through the Internet.[32] FSIS officials believe that this will be a successful way of sharing knowledge throughout the agency on key policy issues.

[31]FSIS senior officials said that the reason they are sending this survey primarily to veterinarians at this point is because Consumer Safety Inspectors are unionized, which makes implementation of a survey instrument to them a cumbersome and lengthy process.

[32]The first HIKE was issued in the fall of 2003.

Conclusions

The Congress first passed legislation in 1958 and subsequently in 1978 to address humane treatment of livestock. Recently, the Congress also provided USDA with additional resources and directed the Secretary of Agriculture to fully enforce the HMSA and implementing regulations. In response, FSIS created the DVMS position. According to many district officials, this step has enhanced knowledge among slaughter plant inspectors about their duties to ensure the humane handling and slaughter of animals. Additionally, very recent efforts, such as the new directive for inspectors, demonstrate a commitment to improving enforcement of the act. However, FSIS still faces challenges. The agency needs to address shortcomings related to adequately recording and analyzing documented instances of noncompliance with the HMSA and ensure consistent application of enforcement actions before it can assure the Congress and the pubic that animals are treated humanely and the act is being fully enforced. Finally, the lack of information on the level of effort FSIS dedicates to humane handling and slaughter activities prevents it from evaluating its own performance and making informed decisions on whether additional inspectors are needed.

Recommendations for Executive Action

We are making six recommendations to the Secretary of Agriculture to further strengthen the agency's oversight of humane handling and slaughter methods at federally inspected facilities.

To provide more quantifiable and informative data on violations of the HMSA, we recommend that the Secretary of Agriculture direct FSIS to

- supplement the narrative found in noncompliance records with more specific codes that classify the types and causes of humane handling and slaughter violations.

To ensure that district officials use uniform and consistent criteria when taking enforcement actions, we recommend that the Secretary of Agriculture direct FSIS to

- establish additional clear, specific, and consistent criteria for district offices to use when considering whether to take enforcement actions because of repetitive violations;
- require that district offices and inspectors clearly document the basis for their decisions regarding enforcement actions that are based on repetitive violations.

To ensure that FSIS can make well-informed estimates about the resources it needs to enforce the Humane Methods of Slaughter Act, we recommend that the Secretary of Agriculture direct FSIS to

- develop a mechanism for identifying the level of effort that inspectors currently devote to monitoring humane handling and slaughter activities;
- develop criteria for determining the level of inspection resources that are appropriate on the basis of plant size, configuration, or history of compliance, once the mechanism is developed and in operation; and
- periodically, assess whether that level is sufficient to effectively enforce the act.

Agency Comments and Our Responses

We provided FSIS with a draft of this report for their review and comment. FSIS generally agreed with our findings and recommendations. In addition, FSIS provided a number of specific comments and clarifications, which we incorporated as appropriate. FSIS's comments and our responses to them appear in appendix II.

We are sending copies of this report to the Secretary of Agriculture and interested congressional committees. We will also provide copies to others on request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions, please call me at (202) 512-3841. Contributors to this report are listed in appendix III.

Lawrence J. Dyckman
Director, Natural Resources
and Environment

Appendix I: Scope and Methodology

To assess the scope and frequency of humane handling and slaughter violations, we obtained and analyzed data from several sources. First, we obtained the U.S. Department of Agriculture's March 2003 Report to Congress on Humane Handling and Slaughter Enforcement Activities, in which USDA presents their findings on noncompliance with the Humane Methods of Slaughter Act (HMSA) during fiscal year 2002. We reviewed that information and followed up with the Food Safety and Inspection Service (FSIS) officials who wrote the report to discuss the methodology they used when they conducted their analysis. Second, in structured interviews with 16 of the 17 District Veterinary Medical Specialists (DVMS), we discussed what they thought were the most common types of noncompliance with the HMSA, based on their visits to plants covered by the act in their districts. In addition, we also reviewed the written summaries that they prepared to document these observations. Third, we obtained from FSIS all available documentation of observed violations to the HMSA for the period January 2001 through March 2003, the period for which FSIS could provide us with the most complete documentation. This information was provided in the form of 553 records of noncompliance. To analyze this information provided in these forms and determine the frequency of violations, by type of violation, as well as their scope, we classified them as follows:

- Ineffective stunning (i.e., one or more animals had to be stunned more than once);
- One or more conscious animals showed signs of consciousness past the stun box, i.e, when they were hoisted, cut, or bled;
- Facility conditions that either caused injury to an animal or could cause injury to an animal, such as broken fences, protruding nails, slippery floors, and overcrowded pens;
- Excessive use of electric prods or other devices;
- Mishandling of ambulatory animals, such as hitting, kicking, or dragging a conscious animal;
- Mishandling of disabled animals, such as keeping such animals among ambulatory animals, increasing the risk of further injury;
- Lack of access to water;
- Lack of access to food; and

- Other instances of noncompliance with the HMSA or applicable regulations.

Using these categories, we aggregated the information to determine the frequency of the various types of violations. In addition, to obtain a further indication of the "scope" of the violation for cases where animals were ineffectively stunned or where conscious animals were observed past the stun box, we created a code indicating whether a single animal or multiple animals were impacted. A GAO analyst knowledgeable of the subject matter conducted all the classifications. A second GAO analyst reviewed all forms and codes determined by the first analyst for accuracy. Any discrepancies were resolved through discussion between the two analysts. We also discussed our methodology with FSIS officials who did not have any objections with our approach.

To further evaluate the information presented in the 553 reports, we reviewed FSIS regulations and guidance to inspectors regarding when they are required to write a noncompliance record and what they are supposed to include in it. In addition, in our structured interviews with 16 of 17 DVMSs, we obtained their views on inspectors' documentation of noncompliance and factors, if any, which may impact it.

To determine FSIS actions to enforce compliance with the humane handling and slaughter requirements, we obtained information on enforcement actions taken at the plant and FSIS district level. To determine how many times inspectors took enforcement actions, and under what circumstances, we analyzed the 553 noncompliance records we obtained from FSIS for the period between January 2001 and March 2003. We analyzed the narrative information in these records to determine when inspectors temporarily stopped use of equipment or part of the plant in response to a violation and for what type of violation. To determine how many times district managers took enforcement actions, we obtained and analyzed documentation for all plant suspensions and notices of intended enforcement actions by a district, for the period between October 2001 and July 2003. In addition, we reviewed FSIS guidance on when inspectors and districts should take enforcement action, and we talked with 16 of the 17 DVMSs about their views on inspectors' enforcement of the act and regulations; and we also talked with all district managers about how they determine when to take enforcement action against a plant.

To assess the extent to which additional resources may be needed to ensure that humane handling and slaughter provisions are enforced, we contacted FSIS headquarters officials, district managers and deputy

district managers at the 15 FSIS district offices, and 16 of the 17 DVMSs. First, from FSIS headquarters, we obtained information officials put together on the estimated number of hours that inspectors devoted to implementation of the HMSA during fiscal year 2003. We also obtained documentation on the training available to inspectors regarding the HMSA and information on the agency's upcoming plans to further address inspectors' training needs and knowledge regarding the HMSA. Second, we conducted structured interviews with district managers and deputy district managers at all 15 FSIS districts to identify additional resource needs, such as additional inspectors, training, and guidance that would be necessary to ensure adequate implementation of the HMSA in their district. Third, we conducted structured interviews with 16 of the 17 DVMSs to obtain their observations on how knowledgeable inspectors are regarding the HMSA and their training needs. We supplemented our analysis of the results of this work with interviews with Dr. Temple Grandin, a renowned animal-handling expert; industry association representatives from the American Meat Institute and the National Meat Association; and animal welfare group representatives from the Humane Society of the United States, Humane Farming Association, and Humane Farm Animal Care, which provided us with their views on improving HMSA enforcement.

To assess the reliability of the FSIS data cited in the background section regarding plants covered by the HMSA, plant production, size of plants, plants covered by each district, and DVMS visits to plants, we (1) performed electronic testing for obvious errors in accuracy and completeness and (2) had discussions with agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

We conducted our review from April 2003 through November 2003, in accordance with generally accepted government auditing standards.

Appendix II: Comments from the Food Safety and Inspection Service

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

United States Department of Agriculture | Food Safety and Inspection Service | Washington, D.C. 20250

JAN 14 2004

Mr. Lawrence J. Dyckman
Director, Natural Resources and Environment Team
Food and Agricultural Issues
United States General Accounting Office
441 G Street, NW, Room 2T23
Washington, DC 20548

Dear Mr. Dyckman:

In your letter dated December 11, 2003, you requested the U.S. Department of Agriculture (USDA) written comments on the Draft report GAO 04-247 "Humane Methods of Slaughter Act: USDA Has Addressed Some Problems but Still Faces Enforcement Challenges." Thank you for the opportunity to provide comments on the draft report.

GENERAL COMMENTS

We are in general agreement with the findings and recommendations in the report, and believe the report supports the Food Safety and Inspection Service's (FSIS) enforcement of the Humane Methods of Slaughter Act. We are providing the following specific comments to help refine the characterization of the Agency's efforts to date. The FSIS is taking steps to address the issues identified in the report, and has already completed and fully implemented several significant measures to address these issues.

SPECIFIC COMMENTS

See comment 1. (Page numbers in the draft report may differ from those in this report.)

1. **Highlights Page. Final Sentence, 3rd Paragraph.** The report states "In general, FSIS officials believe that, with the introduction of a District Veterinary Medical Officer at each of the agency's field offices, the current number of personnel devoted to humane handling and slaughter compliance is adequate."

   We ask that the sentence be changed to read "In general, FSIS officials believe that, with the introduction of a District Veterinary Medical Specialist at each of the agency's field offices, the current number of personnel devoted to humane handling and slaughter compliance is adequate."

See comment 2.

2. **Page 3. Last 2 Sentences, 1st Paragraph.** The report states "Finally, the FSIS administrator can remove the grant of inspection from a facility, which prevents its products from entering interstate or foreign commerce. By law, slaughter facilities cannot slaughter and process animals without federal inspectors present."

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We ask that the sentences be changed to read "Finally, the FSIS Administrator can file a complaint to withdraw the grants of inspection from a facility. By law, slaughter facilities cannot slaughter and process animals for sale in commerce without Federal inspectors present."

See comment 3.

3. **Page 5. 6th Sentence, 1st Paragraph.** The report indicates FSIS was unable to produce at least 44 of its inspection records that document violations of the Humane Methods of Slaughter Act (HMSA) and implementing regulations.

GAO should include the fact that they were provided with 553 non-compliance records (NRs), and many of these records were retrieved from the field. The 44 records FSIS did not provide to GAO represent less than ten percent of all the NRs documented by FSIS during this time period. Some of the hardcopy NRs provided to GAO date from FY 2001. Hardcopy records were difficult to obtain because they were not stored electronically, and needed to be retrieved from the field. As indicated on page 18 of the report, the Agency decided it would rather improve its systems for tracking documentation than retrieve hardcopies of documents from the field.

See comment 4.

4. **Page 5. 5th Sentence, 1st Paragraph.** The report indicates GAO found internal control problems that call into question the reliability of FSIS' records during the period between January 2001 and March 2003 regarding compliance with the Act.

Since GAO analyzed the humane handling data covering a 28 month period, FSIS has fully addressed the records reliability and consistency issues identified in the report. First, the Performance Based Inspection System (PBIS) had been updated during that time. Inspectors now enter and store NRs electronically, and NRs can be easily accessed and analyzed. The information systems infrastructure to facilitate entering, storing, and accessing NR data has been in place since FY 2002. Second, FSIS established the District Veterinary Medical Specialist (DVMS) positions. DVMSs began plant visits in FY 2002 to coordinate with inspection personnel on nationally prescribed humane slaughter procedures and verification of humane handling activities. Although some of the records management and consistency issues raised in the report may have been issues for concern in January 2001, they are not currently. The Agency has taken steps to address these issues.

See comment 5.

5. **Page 5. Final sentence on the page, continued on to page 6, 1st sentence on the page.** The report indicates GAO conducted its own analysis of all the non-compliance records provided to them, and that FSIS performed its analysis on a sample of records.

The GAO narrative should note that FSIS performed its analysis on a sample of approximately half of the NRs available. Also, the report should indicate all known differences in the approach GAO used for its analysis versus FSIS. For

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example, the categories used to group the violations, or whether or not the noncompliance records were reviewed by experienced veterinarians.

See comment 6.

6. **Page 13. 1st and 2nd full sentences on the page.** The report indicates that HMSA does not specifically require inspectors to continuously observe all animal handling and slaughter procedures, but that the Federal Meat Inspection Act requires that each carcass be individually inspected after slaughter to ensure that the meat is safe for human consumption.

GAO should clarify this statement with the following information. HMSA requires continuous inspection of humane handling at every livestock slaughter plant. This is done throughout the day by inspection personnel at the establishment. While it is a continuous inspection of the process, it is not an animal by animal process. Consequently, isolated events of non-compliance could be unobserved by inspection personnel. However, given the on-going nature of the inspection, endemic establishment problems will be identified by inspection personnel within a relatively short period of time.

See comment 7.

7. **Page 16. 1st paragraph, 3rd to the last sentence.** The report indicates that a number of DVMSs participated in a number of district activities that went beyond the scope of humane handling and slaughter of animals, and that these activities took as much as seventy-five percent of the DVMS's time.

GAO should describe how it determined that some DVMSs spent seventy-five percent of their time on activities beyond the scope of humane handling and slaughter of animals. In some cases, the activities of some DVMSs are solely related to humane handling and slaughter. These DVMSs never changed their current focus from the implementation of the HMSA because they were already spending one hundred percent of their time on it. As the report states, currently twelve DVMSs are devoted solely to the implementation of HMSA.

See comment 8.

8. **Page 21. 1st full sentence on the page.** The report indicates that FSIS officials did not provide any information to suggest that the incidents of ineffective stunning GAO had identified were not incidents of actual inhumane treatment or that the number of incidents of ineffective stunning GAO identified were inaccurate.

A thorough analysis of the NRs requires careful reading and interpretation of the narratives provided in the NRs, and, as the following examples show, several instances of noncompliance that appear to be direct animal injury would not have been considered so in a real-world assessment. For example, an inspector observed multiple stun holes on a head, but when the inspector observed the stunning process it was being conducted correctly.

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Other examples include:

- An NR documenting a bullet found in a pig without evidence that the animal was shot on the establishment premises, and the clinical signs observed at postmortem were not consistent with a new wound.
- An NR for excessive prodding with an electric prod, and upon investigation by the plant there was no power source and therefore, the prods were not electric.
- An NR for downer calves in pens where they might have been trampled, but in fact at the time of the NR no additional animals had been admitted to the pen and no animals were injured.

In its analysis FSIS would not consider these cases direct animal injury NRs.

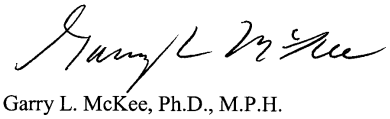
See comment 9.

9. **Page 23**. The report indicates that the introduction of a humane handling procedure code in the PBIS should help FSIS more effectively track NRs that document HMSA violations.

GAO should note that a humane handling Inspection System Procedure (ISP) code in the PBIS was established, and took effect in October 2001. The information systems infrastructure to facilitate entering, storing, and accessing NR data has been in place since FY 2002. Inspectors now enter and store NRs electronically, and NRs can be easily accessed and analyzed.

We appreciate your consideration of our comments. If you have any questions, please contact Ronald F. Hicks, Assistant Administrator, Office of Program Evaluation, Enforcement and Review at (202) 720-8609.

Sincerely,



Garry L. McKee, Ph.D., M.P.H.
Administrator

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The following are GAO comments on the Food Safety and Inspection Service letter, dated January 14, 2004.

GAO Comments

1. We clarified our report to reflect this comment.

2. We clarified our report to reflect this comment.

3. We already include the fact that FSIS provided us with 553 noncompliance records. Additionally, we acknowledge that the 44 records that FSIS did not provide to us represent less than 10 percent of all the documented noncompliance records for the period.

4. We acknowledge that the internal control problem we identified is being addressed. However, we cite the internal control problem because it affected the humane handling data for the period of our analysis—January 2001 to March 2003.

5. The report clarifies that FSIS sampled approximately half of the available noncompliance records. We believe that we sufficiently indicate the differences in the approaches used by FSIS and us in analyzing those records. We acknowledge that the official who conducted the FSIS analysis is a trained veterinarian. However, our analysis relied directly on information provided by FSIS inspectors in noncompliance records.

6. We clarified our report to reflect this comment.

7. The final report clarifies that the 16 DVMSs we interviewed (out of 17 DVMSs) told us that they originally participated in activities beyond the scope of humane handling and slaughter of animals.

8. We have made a slight modification in the report language, but overall, we disagree with this comment. In our analysis, we did not attempt to reinterpret the narratives contained in FSIS noncompliance records that inspectors prepared after observing each violation. We categorized each record according to the type of violation to the HMSA and appropriate regulations. Regarding the first example in FSIS's comments, if a noncompliance record indicated that it was issued because of ineffective stunning, that is the way we categorized the incident. Further, we did not attempt to impose a standard of whether or not documented noncompliance incidents resulted in animal injury for two reasons. First, FSIS did not provide us with any additional documentation, beyond the noncompliance records, indicating

whether direct animal injury resulted from the incident. Second, whether or not an animal injury occurred is not a standard for writing noncompliance records, according to FSIS's own directives. Finally, FSIS did not provide us with any additional examples or other information that, in their view, indicate that ineffective stunning violations reported in noncompliance records did not cause direct injury to animals, and therefore, did not result in actual "inhumane treatment." The next three examples in FSIS's comments do not pertain to ineffective stunning, but we used the same approach to categorizing these type of noncompliance records.

9. We acknowledge that FSIS instituted a humane handling inspections system procedure code, effective October 2001, which should help FSIS better track noncompliance records that document HMSA violations. However, we note that this is a universal code for all HMSA violations and does not provide any additional information about the type or severity of the violation.

Appendix III: GAO Contacts and Staff Acknowledgments

GAO Contacts

Lawrence J. Dyckman (202) 512-3841
Maria Cristina Gobin (202) 512-8418

Acknowledgments

In addition to the individuals named above, Pauline Seretakis, Heather A. Holsinger, Katheryn E. Summers, Charles T. Egan, John W. Delicath, and Jennifer R. Popovic made key contributions. Other contributors include Aldo A. Benejam, Michele C. Fejfar, Karen K. Keegan, Julian P. Klazkin, and Katherine M. Raheb.

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