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Meat and Poultry Inspection Issues

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SUMMARY

The U.S. Department of Agriculture's (USDA's) Food Safety and Inspection Service (FSIS) is responsible for inspecting most meat, poultry, and processed egg products for safety, wholesomeness, and proper labeling. The Food and Drug Administration (FDA) is responsible for ensuring the safety of other foods, including seafood.

In the early 1990s, food safety officials recognized that most foodborne illness cases traced to meat and poultry products were being caused by naturally occurring microbiological contamination that was not being adequately addressed by the traditional, sight-, smell-, and touch-based system of inspection. Through the federal rule-making process, FSIS developed and initiated the Hazard Analysis and Critical Control Point (HACCP) system at all federally inspected slaughtering and processing plants. HACCP regulations require all firms to implement preventive actions at each point along the manufacturing chain where microbial contamination is likely to occur. FSIS inspectors monitor the performance of firms' HACCP systems in addition to performing traditional inspection under the existing statutes.

Despite data suggesting HACCP-related reductions in pathogen levels, periodic recalls continue to illustrate the difficulty of preventing contamination in processed products. Several bills addressing aspects of this issue were introduced in the 108th Congress, and could resurface in the 109th Congress. These include proposals to give FSIS the authority to mandate recalls of suspected contaminated products, and to set and enforce performance standards for foodborne pathogens under HACCP. One recent proposal (H.R. 1507; S. 729) would combine federal food safety programs, including meat and poultry inspection, under a single new agency.

In December 2003, USDA announced the first confirmed U.S. case of bovine spongiform encephalopathy (BSE). On January 12, 2004, FSIS published interim rules banning potentially higher BSE-risk cattle parts and non-ambulatory ("downer") cattle from food, prohibiting the labeling as "meat" of mechanically removed muscle tissue; and banning a form of pre-slaughter stunning that can potentially spread infective brain and nervous system tissue into the meat.

Since January 2004, any carcass tested for BSE must be held until negative results are received. In June 2004, USDA began an intensive 12-18 month BSE testing program for higher-risk cattle; as of April 19, 2005, nearly 323,000 had been tested, all negative for BSE (20,000 were tested in 2003).

Final rules to permit younger Canadian live cattle and additional types of Canadian beef (beyond the boneless beef and other lower-risk products permitted since August 2003) were published by USDA in the January 4, 2005, *Federal Register*. Canada announced two new BSE cases in early January 2005. Officials assert they are isolated and pose no food safety threat. However, a federal judge, responding to a lawsuit by a cattlemen's group, has delayed implementation. In Congress, the Senate voted to block the rule; House passage appears to be less likely.

The Administration's FY2006 budget proposal, released February 7, 2005, calls for new user fees to help fund FSIS inspection operations. The FY2005 agriculture appropriation (Division A of H.R. 4818; P.L. 108-447) currently provides $823.8 million for FSIS.

MOST RECENT DEVELOPMENTS

On April 14, the Centers for Disease Control (CDC) issued its 2004 report on foodborne illnesses. The CDC credited USDA programs as contributing to significant reductions in the incidence of foodborne pathogens, such as *E. coli* 0157, *Listeria monocytogenes*, and others.

A January 4 USDA rule to permit imports of Canadian cattle remains on hold while federal courts decide whether it can be implemented; no decision is expected before June. In Congress, the Senate on March 3 passed a joint resolution that would overturn the rule, but House passage is considered unlikely.

Meanwhile, the appropriations committees are considering the Bush Administration's FY2006 budget proposal for USDA, including the Food Safety and Inspection Service (FSIS) meat and poultry inspection programs. Also, several bills impacting the programs have been introduced, including two that would combine most federal food safety activities under a single agency.

BACKGROUND AND ANALYSIS

Current Standard Inspection and HACCP Systems

FSIS carries out its duties with total staff of nearly 10,000, and an annual appropriation of more than $800 million. In addition, FSIS uses revenue from fees paid by the packing industry for overtime (above three shifts) and holiday inspection services, and by private laboratories that apply for FSIS certification to perform official meat testing and sampling (they originally were authorized in 1919). Revenue from the fees amounts to more than $100 million annually in additional program support. More than 7,500 of FSIS's employees, roughly 1,000 of them veterinarians, are at some 6,200 plants and import stations nationwide.

Traditional inspection under the original statutes comprises constant organoleptic inspection (for appearance, odor, and feel) at slaughter operations and daily inspection of sample products and operations at processing plants. In the early 1990s, following years of debate over how to respond to mounting evidence that invisible, microbiological contamination on meat and poultry posed greater public health risks than visible defects (the focus of traditional inspection methods), FSIS began to add testing for pathogenic bacteria on various species and products to its inspection system.

In 1995, under existing statutes, FSIS published a proposed rule to systematize these program changes in a mandatory program called the Hazard Analysis and Critical Control Point (HACCP) system. In this system, hazards are identified and risks are analyzed in each phase of production, "critical control points" for preventing such hazards are identified and monitored, and corrective actions are taken when necessary. Record keeping and verification are used to ensure that the system is working. FSIS published the final rule in 1996, and since January 2000 all slaughter and processing operations are required to have HACCP plans in place. HACCP is intended to operate as an adjunct to the traditional methods of inspection, which still are mandatory under the original statutes.

Authorities. The Federal Meat Inspection Act of 1906, as amended (21 U.S.C. 601 et seq.), requires USDA to inspect all cattle, sheep, swine, goats, and horses brought into any plant to be slaughtered and processed into products for human consumption. The 1957 Poultry Products Inspection Act, as amended (21 U.S.C. 451 et seq.), made poultry inspection mandatory for any domesticated birds intended for use as human food. The current list of included species is chickens, turkeys, ducks, geese, guineas, ratites (ostrich, emu, and rhea), and squabs (pigeons up to one month old).

FSIS also offers voluntary, fee-for-service inspection for buffalo, antelope, reindeer, elk, migratory water fowl, game birds, and rabbits, which is authorized under the Agricultural Marketing Act (7 U.S.C. 1621). These so-called "exotic" meat species are regulated by the FDA (under the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 301 et seq.) if they are not inspected under the voluntary FSIS program. FDA has jurisdiction over meat products from exotic species in interstate commerce, even if they bear the USDA inspection mark.

In May 1995, the authority for processed egg inspection was transferred from USDA's Agricultural Marketing Service to FSIS. The Egg Products Inspection Act, as amended (21 U.S.C. 1031 et seq.), is the authority under which FSIS assures the safety of liquid, frozen, and dried egg products, domestic and imported, and the safe disposition of damaged and dirty eggs. FDA holds regulatory authority over shell eggs used in restaurants and sold in stores.

State Inspection. Twenty-eight states currently have their own meat and/or poultry inspection programs covering about 2,100 small or very small establishments. The states run the programs cooperatively with FSIS, which provides up to 50% of the funds for operating them, or about $50 million annually. A state program operating under a cooperative agreement with FSIS must demonstrate that its system is equivalent to federal inspection. However, meat and poultry products produced under state inspection are limited to intrastate commerce only. About half of the states have discontinued their inspection systems for meat or poultry (or both). In these states FSIS has assumed responsibility for inspection at the formerly state-inspected plants, although actual inspection is performed by state personnel.

Import Inspection. FSIS conducts overseas evaluations to determine that imports from foreign countries are processed under equivalent inspection systems; agency officials also verify equivalency by visiting various foreign slaughtering and processing operations. A plant seeking to export meat or poultry to the United States must first receive FSIS certification. At U.S. ports of entry, meat and poultry import shipments must first clear Department of Homeland Security (DHS) inspection to assure that only shipments from countries free of certain animal and human disease hazards are allowed entry (this function was transferred to DHS from USDA's Animal and Plant Health Inspection Service (APHIS)). After DHS inspection, imported meat and poultry shipments go to nearby FSIS inspection facilities for final clearance into interstate commerce.

Basic Features of Inspection Systems.

Coverage. FSIS's legal inspection responsibilities do not begin until animals arrive at slaughterhouses, and they generally end once products leave processing plants. Most of the very large slaughter/packer firms also have on-site rendering operations to process certain edible by-products from inspected carcasses (chiefly tallow). These operations are regulated by FSIS under the Federal Meat Inspection Act, and are subject to the same sanitation and

HACCP requirements as the packing plant. (FDA regulates packer/renderer and independent rendering operations that handle non-edible by-products from slaughtering and processing.) Also, certain custom slaughter and most retail store and restaurant activities are exempt from federal inspection; however, they may be under state inspection.

Plant Sanitation. No meat or poultry establishment can slaughter or process products for human consumption until FSIS approves in advance its plans and specifications for the premises, equipment, and operating procedures. Once this approval is granted and operations begin, the plant must continue to follow a detailed set of rules that cover such things as proper lighting, ventilation, and water supply; cleanliness of equipment and structural features; and employee sanitation procedures.

Plants are required under the HACCP rule to have a HACCP plan for their slaughter and/or processing operations. Simply put, this means that at each point in the process where contamination could occur, called a "critical control point," the plant must have a plan to control it, and must document and maintain records. USDA inspectors check the records to verify the plant's compliance. (Under HACCP regulations, all operations must have site-specific standard operating procedures (SOPs) for sanitation).

Slaughter Inspection. FSIS inspects all meat and poultry animals to look for signs of disease, contamination, and other abnormal conditions, both before and after slaughter ("antemortem" and "postmortem," respectively), on a continuous basis — meaning that no animal may be slaughtered and dressed unless an inspector has examined it. One or more federal inspectors are on the line during all hours the plant is operating. Plants pay user fees to have an inspector on duty on overtime and holiday shifts.

Processing Inspection. The inspection statutes give the Secretary discretion to determine how often a USDA inspector must visit facilities that produce processed products like hot dogs, lunch meat, prepared dinners, and soups. Under current regulations, processing plants that are visited once every day by an FSIS inspector are considered to be under continuous inspection in keeping with the laws. Inspectors monitor operations, check sanitary conditions, examine ingredient levels and packaging, review records, verify HACCP processes, and conduct statistical sampling and testing of products during their on-site visits.

Pathogen Testing. The HACCP rule also mandates two types of microbial testing: for generic *E. coli* and for *Salmonella*. Levels of these two organisms are indicators of conditions that either suppress or encourage the spread of such potentially dangerous bacteria as *Campylobacter* and *E. coli* O157:H7, as well as *Salmonella* itself. Test results help FSIS inspectors verify that plant sanitation procedures are working, and to identify and assist plants whose process controls may be underperforming. In the initial years of HACCP implementation, plants that failed three consecutive *Salmonella* tests could have their USDA inspectors withdrawn. This would effectively shut down the plant until the problem could be remedied. A federal court ruling in 2000, upheld on appeal in 2001, made such enforcement illegal. Nonetheless, FSIS inspectors still test samples for *Salmonella* and use the results as one of a number of indicators of plant performance.

Enforcement Authority. FSIS has a range of enforcement tools to prevent adulterated or mislabeled meat and poultry from reaching consumers. On a day-to-day basis, if plant conditions or procedures are found to be unsanitary, an FSIS inspector can, by

refusing to perform inspection, temporarily halt the plant's operation until the problem is corrected. FSIS can condemn contaminated, adulterated, and misbranded products, or parts of them, and detain them so they cannot progress down the marketing chain. Other tools include warning letters for minor violations; requests that companies voluntarily recall a potentially unsafe product; a court-ordered product seizure if such a request is denied; and referral to federal attorneys for criminal prosecution. Prosecutions under certain conditions may lead to the withdrawal of federal inspection from offending firms or individuals, which results in plant closure.

Meat Safety and BSE

Bovine spongiform encephalopathy (BSE, or "mad cow disease") has entered the public policy spotlight here with the discovery of four native North American cases. The first was announced in Canada in May 2003, and the second in the United States in December 2003 (it too was Canadian-born). Canadian officials confirmed their second and third cases on January 2 and 11, 2005.

First diagnosed in Britain in 1986, BSE is a slowly progressive, incurable disease affecting the central nervous system of cattle. Scientists consider BSE to be related to similar diseases, called transmissible spongiform encephalopathies (TSEs), that occur in other species. Investigators in the British BSE outbreak connected the use in cattle feeds of animal protein from TSE-infected sheep with the appearance of BSE in cattle. In 1997, European scientists determined that there was a possible link between consumption of infected tissue from BSE cattle and an outbreak in humans of a newer variant of a fatal brain disease called Creutzfeldt-Jakob disease (nvCJD) that had begun in Europe in the late 1980s.

FSIS is one of the three federal agencies primarily responsible for keeping BSE out of the food supply. The other two agencies involved in BSE are APHIS and the FDA (part of the Department of Health and Human Services). The Centers for Disease Control and Prevention (CDC) also play a role regarding public health protection. (For more coverage of BSE and related livestock industry issues, see CRS Issue Brief IB10127, *Mad Cow Disease: Agricultural Issues for Congress*.)

APHIS, which (among other things) is responsible for protecting U.S. agriculture from foreign animal diseases, in 1989 imposed a ban on the import of all live ruminants from countries where BSE is known to exist. In 1991, APHIS banned the import of rendered by-products from ruminants, and then it banned, as of December 2000, the import of all rendered animal protein products (whether from ruminants or not).

Canadian Cases. After the Canadian announcement of the first native North American BSE case in May 2003, APHIS banned all ruminants and products from Canada. Since August 2003, APHIS has permitted entry of some products (notably boneless beef from cattle under 30 months), determining that they were low-risk. APHIS published a final rule in the January 4, 2005, *Federal Register*, to allow imports of primarily younger live ruminants, along with additional types of beef and other ruminants and ruminant products, from a new category of BSE "minimal risk" regions, the first one to be Canada. As the final rule was being unveiled, Canada reported two new cases of BSE. The first was announced on January 2, a dairy cow born before the 1997 feed ban; the second was announced on January 11, a beef cow born in 1998, after the ban took effect. A federal judge in early

March delayed implementation of the rule in response to a lawsuit by a cattlemen's group, the Ranchers-Cattlemen Action Legal Fund (R-CALF) USA. USDA has appealed the delay, but resolution of the case is not expected before June at the earliest. (See also CRS Report RL32627, *Bovine Spongiform Encephalopathy ('Mad Cow Disease') and Canadian Beef Imports*.)

U.S. Case and Actions. The U.S. BSE case was discovered in December 2003. Officials reassured the public that any human health risks were minimal, and that no high-risk tissues had entered the food supply. However, they announced, out of "an abundance of caution," a voluntary recall of 38,000 pounds of meat from 20 animals slaughtered at the same plant that day, and acknowledged that some of it likely had been consumed. FSIS also published, as interim final rules in the January 12, 2004, *Federal Register*, several actions to bolster U.S. BSE protection systems, effective immediately:

- Downer (nonambulatory) cattle are no longer allowed into federally inspected or state-inspected slaughter and processing facilities.
- Cattle selected for testing cannot be marked as "inspected and passed" until confirmation is received that they have tested negative for BSE.
- Specified risk materials (SRM), which include the skull, brain, trigeminal ganglia, eyes, vertebral column, spinal column, and dorsal root ganglia of cattle over 30 months of age, and the small intestine of cattle of all ages, are now prohibited from the human food supply.
- Slaughter facilities are required to develop and implement procedures to remove, segregate, and dispose of SRM and make information readily available for review by FSIS inspection personnel.
- SRM from cattle 30 months or older cannot be in a product labeled as "meat" if derived from advanced meat recovery (AMR) technology, which USDA said would help ensure it does not contain spinal tissue.
- Mechanically separated meat may not be used for human food.
- Air injection stunning is banned, to ensure that portions of the animal brain are not dislocated into the carcass.

Other USDA actions in the wake of the December 2003 BSE discovery have included more attention to implementing a nationwide animal identification (ID) program that would enable all cattle and other animal movements to be traced within 48 hours in cases of animal disease; and the launch in June 2004 of an intensive 12-18 month BSE testing program for higher-risk cattle. As of April 19, 2005, nearly 323,000 had been tested, all negative for BSE (20,000 were tested in 2003).

FDA, which regulates animal feed ingredients domestically, banned the feeding of most mammalian proteins to ruminants in August 1997. Several reviews by the Government Accountability Office (GAO) have been critical of rule enforcement. A February 2005 report concluded that FDA had made improvements in its management of the feed ban, but that program weaknesses continue to limit its effectiveness, placing U.S. cattle at risk of spreading BSE. Among the weaknesses cited by GAO are that FDA has no uniform approach for identifying all the additional feed manufacturers, on-farm mixers, and other feed industry businesses beyond the approximately 14,800 firms it has inspected so far; that it has not reinspected approximately 2,800 of the firms it has inspected and does not know whether they use prohibited materials (i.e., cattle parts that might harbor the BSE agent) in

their feed; that FDA has not required a warning label on feed for export even though it is not intended for cattle and other ruminants; and that it has not always alerted USDA and the states when it learns that cattle may have been given prohibited feed.

In July 2003 and January 2004, FDA was reporting that feed industry compliance with the ban had reached 99%. However, that may be misleading, because the compliance rate was last based on inspections of only about 570 firms, GAO reported. The GAO report added that FDA does not include all serious violations in the calculations because it reclassifies firms as being in compliance once they correct violations, no matter how long a problem existed, among other problems with the data.

Nonetheless, the animal feed ban remains a key focus of efforts to improve U.S. BSE safeguards. The FDA had announced on January 26, 2004, that it would tighten feed ingredient and processing rules. On July 14, 2004, FDA took tentative steps to do so with an advance notice of proposed rulemaking (ANPR), in which it said it was considering a ban on specified risk materials (SRMs, which are designated higher-risk cattle parts such as brains and spinal cords) from all animal feeds. Industry groups said they were pleased that the agency was proceeding carefully but concerned about compliance costs. Consumer advocates argued that rulemaking was moving too slowly. The ANPR was issued jointly with USDA and sought comments on a number of additional BSE preventive steps being considered.

Congressional Actions. BSE remains a high priority for many Members of the 109th Congress. A number of them already have joined others in calling for a delay or rescission of the Canada rule. Congress had 60 legislative days from publication of the rule to review it, as provided for in the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 801-808). On March 3, 2005, the Senate approved a resolution of disapproval (S.J.Res. 4) by a vote of 52-46. A related resolution (H.J.Res. 23) is pending in the House, but passage there, and the President's signature, is considered less likely.

Other bills addressing the Canada rule include H.R. 187, to prohibit the rule "unless United States access to major markets for United States exports of cattle and beef products is equivalent or better than the access status accorded such exports as of January 1, 2003"; and H.R. 384/S. 108, to prohibit the Canada rule unless mandatory retail country-of-origin labeling (COOL) is implemented. The current statutorily set deadline for COOL for fresh meats is September 30, 2006 (see CRS Report 97-508, *Country-of-Origin Labeling for Foods*). S. 294 would prohibit imports (from a minimal risk region like Canada) of meat, meat byproducts, and meat food products from bovines over 30 months old unless the Secretary reports to Congress that the region "is in full compliance with a ruminant feed ban and other [BSE] safeguards."

Among other BSE-related bills introduced in the 109th Congress are S. 73, to ban specified risk material from all animal feeds; and S. 135, to include processed as well as fresh meats as COOL-covered commodities, and to advance implementation to September 30, 2005. BSE, including the Canada situation, was a major topic during the Senate Agriculture Committee's January 6, 2005, confirmation hearing for Agriculture Secretary Michael Johanns. The Senate committee held a hearing specifically on BSE and trade on February 3, 2005, and the House Agriculture Committee held its own oversight hearing on the Canada BSE trade situation on March 1, 2005.

Inspection Funding Issues

From time to time in the past, FSIS has had difficulty in sufficiently staffing its service obligations to the meat and poultry industries. Usually a combination of factors causes these shortages, including new technologies that increase plant production speeds and volume, insufficient appropriated funds to hire additional inspectors at times of unexpected increases in demand for inspections, and problems in finding qualified people to work in dangerous or unpleasant environments or at remote locations. These staffing problems have been exacerbated by the addition of HACCP requirements on top of the traditional carcass-by-carcass inspection duties. To monitor the staffing situation more closely, Congress included language in the conference report to accompany the FY2000 USDA appropriations law (P.L. 106-78), requiring FSIS to prepare a quarterly report on budget execution, staffing levels, and staffing needs (these are available on the FSIS website under "Communications to Congress"; see [http://www.fsis.usda.gov/oa/congress/congress.htm#Annual]).

To address staffing problems, most administrations over the past 20 years have proposed in their annual budget requests to charge the meat-packing industry new user fees sufficient to cover the entire cost or a portion of federal inspection services. The primary rationale for more comprehensive user fees has been that resources would then be adequate to hire new inspectors as necessary. USDA economists estimate that the cost passed on to consumers from such a fee would be no more than one cent per pound. Congressional appropriators have rejected new user fee proposals every year, stating that the safety of the food supply is a legitimate responsibility of the government. In addition, some Members have argued that the large meat recalls that have occurred since HACCP was implemented illustrate why the government should retain taxpayer-funded regulatory oversight.

The Administration's initial FY2006 budget proposal (February 2005) reiterated user fee proposals made in FY2003, FY2004, and FY2005 to increase the industry's reimbursement for FSIS inspection beyond one shift per day. The Administration's rationale is that the regular working day should be considered standard inspection, and any services provided beyond that time should be considered additional, hence subject to a higher fee schedule. Appropriators so far have rejected these proposals, and in recent years they have included report language stating that they will not consider offsetting FSIS appropriations with greater revenue from user fees unless authorizing legislation has first been passed.

The President's FY2006 budget proposes a $973 million program level for FSIS, of which $123 million is funded by existing user fees, and $850 million by congressional appropriation. Counted as part of the overall $850 million appropriation is $139 million in new user fees (see above). The budget proposal cites FSIS increases of $19.4 million to expand FSIS activities related to USDA food defense and biosurveillance initiatives; and $2.2 million to hire 22 additional "Consumer Safety Inspectors" so that the work of FSIS veterinarians can be shifted "to more complex activities related to public health."

The FY2005 Consolidated Appropriations Act (P.L. 108-447, H.R. 4818) currently funds FSIS. It sets a level of $823.8 million for the agency in FY2005, a $43.9 million increase from the FY2004 enacted level.

FSIS Bioterrorism Preparedness

Since September 11, 2001, concern has been voiced about the potential for terrorist attacks on the U.S. agricultural base and food supply through intentional contamination by organisms or chemicals injurious to crop, animal, or human health. FSIS received $15 million in funds for increased oversight of meat and poultry safety in the Defense emergency supplemental act (P.L. 107-117, enacted January 10, 2002) which allocated the remaining $20 billion from the September 11, 2001, disaster relief act (P.L. 107-38). The Public Health Security and Bioterrorism Preparedness and Response Act (P.L. 107-188) authorized an additional $15 million in FY2002 and such sums as necessary in subsequent years to strengthen FSIS's inspection force. The FY2004 agriculture appropriations conference report (H.Rept. 108-401) allocated a portion of the increased appropriation to hire additional inspectors and increase laboratory testing for pathogens causing foodborne illness.

FSIS's Food Biosecurity Action Team (F-BAT) has conducted mock exercises to improve response time and communication in emergency situations. FSIS made security guidelines available to food processors in August 2002 (accessible on the FSIS website). The Food Threat Preparedness Network (PrepNet) is a joint FSIS/FDA group that works on threat prevention and emergency response. (See CRS Report RL32521, *Agroterrorism: Threats and Preparedness*.)

Pathogens

Pathogen Performance Standards. The meat and poultry inspection statutes do not give USDA the authority to use *Salmonella* standards as the basis for withdrawing inspection from a plant that has not met them, a federal court ruled in 2000, and an appeals court upheld in 2001. Subsequently, USDA has adopted the position that the court decision did not affect the agency's ability to use the standards as part of the verification of plants' sanitation and HACCP plans.

Nonetheless, the appeals court ruling supports the arguments of those who say that pathogen testing results should not be a basis for enforcement actions until scientists can determine what constitutes an unsafe level of *Salmonella* in ground meat. Consumer groups and other supporters of mandatory testing and microbiological standards, as well as of increased enforcement powers, have used the case to bolster their argument for amending the meat and poultry inspection statutes to specify microbiological standards. In recent years bills have been offered to add language to the inspection laws clarifying the Secretary's authority to set enforceable performance standards (e.g., S. 1103 and H.R. 2203 in the 108th Congress).

The National Advisory Committee on Microbiological Criteria for Foods, established in 1988 to provide scientific advice to the Secretaries of Agriculture and of Health and Human Services on public health issues, concluded in a report issued in October 2002 that "performance standards that meet the principles as outlined in this document [i.e., standards that are based on quantitative rather than qualitative data] are valuable and useful tools to define an expected level of [pathogen] control in one or more steps in the process." (The report is at [http://www.fsis.usda.gov/OPHS/nacmcf/rep_stand.htm].)

A second review of microbiological performance standards, *Scientific Criteria to Ensure Safe Food*, was released in 2003 by the Institute of Medicine in collaboration with the National Research Council of the National Academy of Sciences (see [http://www.nap.edu/catalog/10690.html]). Among many recommendations, this report calls on Congress to "grant the regulatory agencies clear authority to establish, implement, and enforce food safety criteria, including performance standards, and the flexibility needed within the administrative process to update these criteria." The report also makes seven specific recommendations for FSIS to take to improve the safety of meat and poultry products. Among these are (1) conduct surveys to evaluate changes over time in the microbiological status of certain components of processed meats and poultry; (2) expand *E. coli* O157:H7 testing, identify control points for *E. coli* O157:H7 back to the farm level, and inform consumers that even irradiated ground beef must be cooked to a temperature that kills the pathogen; (3) greatly expand generic *E. coli* criteria for, and *Salmonella* performance standards for, beef trim intended for grinding.

***E. coli* O157:H7.** In October 1994, FSIS began testing samples of raw ground beef for *E. coli* O157:H7 and declared that any such product found with this pathogen would be considered adulterated — the first time a foodborne pathogen on raw product was declared an adulterant under the meat inspection law. Industry groups immediately asked a Texas federal court for a preliminary injunction to halt this effort, on the grounds that it was not promulgated through appropriate rulemaking procedures, was arbitrary and capricious, and exceeded USDA's regulatory authority under law. In December 1994, the court denied the groups' request, and no appeal was filed, leaving the program in place. FSIS has taken tens of thousands of samples since the program began; to date, several hundred samples have tested positive.

In September 2002, FSIS issued a press release stating that "[t]he scientific data show that *E. coli* O157:H7 is more prevalent than previously estimated," and in October 2002 the agency published a notice in the *Federal Register* (67 FR 62325) requiring manufacturers of all raw beef products (not just ground beef) to reassess their HACCP plans and add control points for *E. coli* O157:H7 if the reassessment showed that the pathogen was a likely hazard in the facility's operations. The changes at large operations were required to be complete by December 6, 2002; small plants had until February 4, 2003, and very small plants until April 7, 2003. FSIS inspectors are to verify that corrective steps have been taken and conduct random testing of all beef processing plants, including all grinders (some previously had been exempted). In addition, the agency is issuing guidelines to grinding plants advising them to increase the level of pathogen testing by plant employees, and to avoid mixing products from different suppliers.

FSIS reported on February 28, 2005, that of 8,010 ground beef samples tested in 2004, 0.17% tested positive for *E. coli* 0157:H7, part of the 80% decline in the percentage of positive samples since 2000, when it was 0.86%. FSIS asserted that the reduction reflected the success of its HACCP-based and related regulatory policies.

Also, a CDC report issued on April 14, 2005, indicated that the incidence of infections caused by *E. coli* 0157:H7 had declined significantly from the 1996-1998 baseline through 2004. Data are from the preliminary CDC FoodNet report, which can be viewed at [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5414a2.htm].

***Listeria monocytogenes*.** In February 2001, FSIS published a proposed rule to set performance standards that meat and poultry processing firms would have to meet to reduce the presence of *Listeria monocytogenes* (*Lm*), a pathogen in ready-to-eat foods. The proposal covered over 100 different types of dried, salt-cured, fermented, and cooked or processed meat and poultry products. *Lm* causes an estimated 2,500 illnesses and 499 deaths each year (from listeriosis), and is still the primary cause of meat and poultry product recalls.

The proposed regulations raised a controversy among affected constituencies. The meat industry argued that the benefits to consumers would not outweigh the cost to packers of additional testing. Representatives of food manufacturers criticized the proposed regulations for covering some categories of foods too broadly and heavily, while not covering some other high-risk foods at all (such as milk, which is under FDA jurisdiction). Consumer groups said that the proposed rule would not require enough testing in small processing plants and that products not tested for *Lm* should not be labeled "ready-to-eat" because they would still require cooking to be 100% safe.

Interest in the *Listeria* issue increased significantly after October 2002, when Pilgrim's Pride Corporation recalled a record-breaking 27.5 million pounds of poultry lunch meats for possible *Lm* contamination after a July 2002 outbreak of listeriosis in New England. The Centers for Disease Control and Prevention confirmed 46 cases of the disease, with 7 deaths and 3 stillbirths or miscarriages. The recall covered products made as long ago as May 2002, and officials stated that very little of the meat was still available to be recovered.

In December 2002, FSIS issued a directive to inspection program personnel giving new and specific instructions for monitoring processing plants that produce hot dogs and deli meats. (The guidelines can be found on the FSIS website at [http://www.fsis.usda.gov]).

In June 2003, FSIS announced the publication of an interim final rule to reduce *Listeria* in ready-to-eat meats. Rather than set performance standards, as the February 2001 proposed rule would have, the new regulation requires plants that process RTE foods to add control measures specific to *Listeria* to their HACCP and sanitation plans, and to verify their effectiveness by testing and disclosing the results to FSIS. The rule directs FSIS inspectors to conduct random tests to verify establishments' programs. Plants are subject to different degrees of FSIS verification testing depending upon what type of control steps they adopt in their HACCP and sanitation plans (see the FSIS website for more details on the rule).

On January 4, 2005, the Consumer Federation of America (CFA) issued a report sharply criticizing USDA's *Listeria* rulemaking. CFA asserted that the Department essentially adopted meat industry positions in weakening the final rule, such as by deleting proposed plant testing requirements and by not explicitly requiring that HACCP plans include *Listeria* controls. In 2003, *Listeria* illnesses increased by 22%, CFA contended. USDA and meat industry officials countered that the number of product recalls related to *Listeria* had declined from 40 in 2002 to 14 in 2003, that the rise in *Listeriosis* cases was quite small in 2003 after four years of declines, and that the interim rule provides more incentives for plants to improve safety. The CDC's 2004 FoodNet reported that the incidence of foodborne illness caused by *Listeria* experienced a decline in 2004 after an increase in 2003, with an overall 40% decline from a 1996-1998 baseline. FSIS had announced nearly a dozen recalls of processed meat and poultry products totalling nearly 90,000 pounds due to *Listeria* in 2005 (through mid-April), according to the agency's website.

Other Legislative and Administrative Issues

Humane Slaughter. Under provisions in the Federal Meat Inspection Act (21 U.S.C. 603(b), 610(b), 620(a)), FSIS inspectors are responsible for enforcing the Humane Methods of Slaughter Act (7 U.S.C. 1901-1906). This act requires that all livestock (but not poultry) be rendered unconscious before slaughter. FSIS inspectors have the authority to stop slaughter lines and order plant employees to take corrective actions to ensure compliance with the act. Legislative proposals to include poultry under the act were introduced in the 102nd through 104th Congresses, but none was acted upon.

Until recently, the issue of humane slaughter has been closely connected with the issue of humane treatment of downer cattle at federally inspected slaughtering facilities and other locations. During action on the FY2004 agriculture appropriations bill in the 108th Congress, lawmakers debated amendments that reflected the content of companion bills in the House and Senate (the Downed Animal Protection Act; H.R. 2519/S. 1298). These would have amended the 2002 farm act to require that downed animals at stockyards, market agencies, livestock dealer facilities, and slaughter facilities be euthanized immediately and barred from federal inspection. The Senate adopted the downed animal provision in its funding bill, but it was dropped in conference. The January 2004 USDA regulatory ban on slaughtering downers for human food was adopted in response to BSE concerns, but some lawmakers remained interested in writing the ban into law.

Concerns have persisted about FSIS enforcement of compliance with the Humane Methods of Slaughter Act (HMSA) regarding healthy, ambulatory animals. These concerns arose in early 2002 when media reports alleged widespread violations of the act, which prompted a number of administrative and congressional actions. In February 2002, FSIS placed 17 veterinarians in its district offices, specifically to monitor humane slaughter and handling procedures and to report to headquarters on compliance. The conference agreement on the 2002 farm act contains a provision expressing the sense of Congress that FSIS should fully enforce the HMSA and report the number of violations to Congress annually. In the FY2003 consolidated appropriation act, Congress designated $5 million of FSIS funding specifically for hiring 50 additional inspectors to oversee the agency's compliance, and language in the FY2004 Consolidated Appropriations Act directed FSIS to continue this process.

On January 31, 2004, GAO released a report to Congress stating that it had found it difficult to assess FSIS's performance on enforcing the act because of incomplete and inconsistent inspection records (GAO-04-247, *Humane Methods of Slaughter Act: USDA Has Addressed Some Problems but Still Faces Enforcement Challenges).* GAO also reported that inspectors' knowledge of regulatory requirements varied, documentation did not consistently reflect the scope and severity of incidents, and enforcement action varied depending upon whether it was one animal or several that had not been rendered completely unconscious by stunning. FSIS issued new guidelines to its field personnel in November 2003, and indicated it would follow up on GAO's recommendations for improvement. On September 9, 2004, the agency published a *Federal Register* notice outlining a "systematic approach" to meeting humane slaughter requirements.

USDA's FY2005 budget request asked for another $5 million to address this issue. The final appropriations measure includes language, generally as proposed by the Senate, which

directs that no less than 63 full-time equivalent positions (above the FY2002 level) be devoted to enforcement of the Humane Methods of Slaughter Act, and that $3 million (rather than the $4 million in the Senate bill) be provided to incorporate the agency's Humane Animal Tracking system into its field computer systems. Also in the appropriation (P.L. 108-447), as part of the FSIS overall total, are $17.3 million combined for frontline inspectors and humane slaughter enforcement.

Equine Slaughter. Some 50,000 or more U.S. horses are slaughtered each year for human food, mainly for European and Asian markets. Bills in the 108th Congress would have banned such slaughter. In the 109th Congress, H.R. 503 would amend the Horse Protection Act to prohibit any movement of or commerce in horses and other equines to be slaughtered for human consumption. Debate has focused on the acceptability of this practice, and whether adequate care could be provided for such horses if they no longer went for human food. (See CRS Report RS21842, *Horse Slaughter Prevention Bills and Issues*).

Meat Traceability. USDA's Office of Inspector General (OIG) on September 30, 2003, released an audit report on a 2002 meat recall by Con Agra (see "*E. coli* O157:H7," above). The report recommends "that FSIS reassess its management control process over ... recall operations ... by ensuring that ground beef is traceable from manufacturing to point-of-sale and that adequate production records are maintained to facilitate traceback." Several bills intended to create an animal ID and tracking system were introduced in the second session of the 108th Congress, following the discovery of the first U.S. case of BSE. The issue has also been debated in connection with protecting against bioterrorism; verifying the U.S. origin of live cattle and meat products for export; and facilitating recalls to prevent or contain foodborne illness outbreaks, among other things. Supporters of animal ID and meat traceability point out that most major meat-exporting countries already have domestic animal ID systems. The U.S. meat industry argued in the past that such a system would not be based on sound science, and would be technically unworkable. However, since the domestic BSE case, the industry, USDA, and some Members of Congress have been moving toward adoption of a national animal ID (but not meat traceability) system, focused on animal disease control rather than food safety per se. Among other issues are cost, need for a mandatory rather than voluntary system, and privacy of records. H.R. 1254, which would require the establishment of an electronic nationwide livestock identification system, has been offered in the 109th Congress. (For more information on this subject, see CRS Report RL32012, *Animal Identification and Meat Traceability*.)

Recall and Civil Penalty Proposals. Bills to enhance the effectiveness of meat and poultry recalls have been introduced in successive Congresses. In the 108th Congress, the Unsafe Meat and Poultry Recall Act was proposed to authorize FSIS to recall suspected contaminated products directly if the product owner did not comply with the agency's request for a voluntary recall. Another bill would have given USDA and FDA recall authority. Currently, the Agriculture Secretary must go to the courts to obtain an order to seize and detain suspected contaminated products if a firm refuses to issue a recall voluntarily. Another bill, the Meat and Poultry Inspection Accountability Act , would have given FSIS the authority to impose substantial civil money penalties on slaughtering and processing operations that violated the meat and poultry inspection laws and regulations. These measures did not advance beyond their committees of referral, but similar proposals could arise in the 109th Congress.

The GAO has criticized agencies' efforts to ensure that companies carry out recalls quickly and efficiently, particularly of products that may carry severe risk of illness. For example, an October 2004 GAO report, *Food Safety: USDA and FDA Need to Better Ensure Prompt and Complete Recalls of Potentially Unsafe Food*, concluded that the agencies do not know how well companies are carrying out recalls and are ineffectively tracking them. As a result, most recalled items are not recovered and thus may be consumed, GAO reported.

At past hearings, consumer groups and food safety advocacy groups have testified in favor of obtaining these new enforcement tools to improve food safety in general, and to strengthen USDA's enforcement of the new HACCP system in particular. These groups have stated that civil fines would serve as an effective deterrent and could be imposed more quickly than criminal penalties or the withdrawal of inspection. They also have argued that the authority to assess civil penalties would permit USDA to take stronger action against "bad actors" — processors who persistently violate food safety standards. Food safety advocates argue that FSIS should have the authority to mandate product recalls as a backup guarantee in case voluntary recalls moved too slowly or were not comprehensive enough.

Meat and poultry industry trade associations have testified in opposition to granting USDA new enforcement powers. Both producers and processors argue that current authorities are sufficient and that only once has a plant refused to comply with USDA's recommendation to recall a suspected contaminated product. Industry representatives have testified that USDA's current authority to withdraw inspection, thereby shutting down a plant, is a strong enough economic penalty to deter potential violators and punish so-called bad actors. Furthermore, they say, new enforcement powers would increase the potential for plants to suffer drastic financial losses from suspected contamination incidents that could ultimately be proven false. Some observers argue that much still needs to be done to educate consumers and restaurateurs about safe meat and poultry handling and cooking practices.

In August 2004, the consumer group Center for Science in the Public Interest (CSPI) began a national campaign to urge USDA to publicize the names of retail outlets where recalled meat has been distributed, so that consumers can learn more quickly whether they have purchased potentially contaminated products. USDA and industry leaders contend that distribution records are proprietary, and exempt from provisions of the Federal Freedom of Information Act; such information, they argue, should be limited mainly to public officials so that they can monitor recalls. At the state level, the California legislature in August 2004 passed a bill (SB 1585) to require food companies and public agencies to make recall information more widely available. However, the governor vetoed the bill.

Language in the conference report to accompany the FY2005 appropriation for USDA (P.L. 108-447; H.Rept. 108-792) commends FSIS for beginning to include, in its meat and poultry recall notices, photographs of recalled products and website addresses of their manufacturers. Conferees urge the agency to continue this practice and also to ask manufacturers to voluntarily provide information on retail locations of recalled products, for inclusion in the releases.

Single Food Agency. For many decades, various interests have debated the effectiveness of the federal regulatory structure for food safety, which is spread among a number of agencies and departments. Some have proposed that the several different federal agencies having responsibility for food safety be consolidated into a single entity. In the

109th Congress, companion bills (H.R. 1507, S. 729) have been introduced which would combine federal food safety programs, including meat and poultry inspection, under a new Food Safety Administration. The bill's chief sponsors had introduced legislation (H.R. 5259 and S. 2910) with a similar purpose in the 108th Congress.