

National Advisory Committee on Meat and Poultry Inspection

Issue Paper for consideration by Sub-Committee

Food Security

Purpose

The purpose of this paper is to provide sufficient background information on the food shields that FSIS has in place or is considering to help the members of NACMPI answer the following questions:

1. Should FSIS require food security plans in plants?
2. If you believe such plans should be required, what components of the FSIS guidelines (listed on page 3 of this paper) and the countermeasures identified from the vulnerability statements (listed on pages 4 and 5 of this paper) are of most importance for such plans?

Background

FSIS has taken a significant number of aggressive actions to address the security of USDA-regulated food products. These include establishing a new office dedicated to the issue, developing vulnerability assessments, and issuing guidance documents. A common thread running through these actions is the development of countermeasures for preventing intentional adulteration of food at specific points along the supply chain.

FSIS has examined surveillance and monitoring systems and staff functions in light of their utility for food security protection and the potential mitigation actions identified in the vulnerability assessments. FSIS is currently trying to determine which of these countermeasures provide the most effective protection and how to best implement them.

Discussion

Recognition of the need to protect the food supply from terrorist attack begins at the highest levels of the Federal government. For example, a number of Homeland Security Presidential Directives (HSPD) has been issued over the past 18 months address food security, including:

- HSPD - 7, *Critical Infrastructure Identification, Prioritization, and Protection*
 - Identifies USDA as a Sector-Specific Agency with responsibilities in support of DHS for protection of agriculture and meat, poultry and egg food products

- HSPD - 9, *Defense of United States Agriculture and Food*
 - Establishes national policy to defend agriculture and food systems against terrorist attacks, major disasters, and other emergencies; and
 - Describes a number of actions to be taken by Federal agencies and State and local governments, including:
 - Awareness and training
 - Vulnerability assessments
 - Mitigation strategies
 - Response planning and recovery
 - Outreach and professional development
 - Research and development

Another food security driver is the Bioterrorism Act of 2002 (Public Health Security and Bioterrorism Preparedness and Response Act of 2002, P.L. 107-188). Title III of the Act states that:

FSIS may utilize existing authorities to give high priority to enhancing and expanding the capacity to conduct activities to:

1. Enhance the ability of the agency to inspect and ensure the safety/wholesomeness of meat and poultry products;
2. Improve the capacity to inspect international meat and meat products;
3. Strengthen the ability to collaborate with relevant agencies within USDA and across Federal government; and
4. Otherwise expand the capacity to protect against the threat of bioterrorism.

FSIS Actions in Food Security

FSIS has taken a number of significant actions to address the security of USDA-regulated food products:

- *Created the Office of Food Security and Emergency Preparedness (OFSEP)* - OFSEP serves as the centralized office within the Agency on food security issues. OFSEP is charged with developing the Agency's infrastructure and capacity to prevent, prepare for, and respond to actual or suspected deliberate acts and other major events that threaten the U.S. food supply.
- *Developed Vulnerability Assessments* - FSIS completed vulnerability assessments for selected domestic and imported food products. These assessments have been used to determine the most vulnerable products, likely agents, and potential sites for deliberate contamination, and to develop countermeasures (see below).
- *Issued Guidance Documents* - The Agency has published a series of documents that provide food security guidance to industry and consumers, including:

- *FSIS Security Guidelines for Food Processors* (April 2002);
The FSIS guidelines provide suggestions about a number of potential actions to improve food security, including the development and testing of food security plans. Food security plans may identify vulnerabilities; address procedures for handling threats and cases of product tampering; product recall; facility evacuation; safe handling and disposal of contaminated product; and communication with law enforcement, local public health officials and the media. Periodic review and revision of the plan is recommended, as is testing of the plan by conducting regular exercises or drills. Effectiveness may be assessed by identifying hazard control points; determining the method, frequency and limits that must be met for the control points; and developing a monitoring and verification plan to pinpoint needed corrective and preventive actions.
- *FSIS Safety and Security Guidelines for the Transportation and Distribution of Meat, Poultry, and Egg Products* (August 2003); and
Food Safety and Food Security: What Consumers Need to Know (November 2003).
- *Developed Food Shields* - Shields can be broadly categorized as:
 - Agency personnel and the functions they perform - which provides onsite human surveillance;
 - Monitoring systems or databases - which provide sentinel or passive surveillance; and
 - Countermeasures from vulnerability assessments.

Development of Food Shields

Agency Personnel

FSIS has over 7,600 Inspectors, Veterinary Medical Officers, Import Inspectors, and Import Surveillance Liaison Inspectors (ISLIs) in federally regulated slaughter and processing facilities, port and border crossing locations, and official import inspection establishments located throughout the country working to ensure the safety of USDA-regulated food products. In addition, the safety of food products in the distribution and retail segments of the supply chain is ensured by other FSIS field personnel (Program Investigators, Public Health Epidemiology Liaison Officers). FSIS field personnel are being increasingly called upon to address food security as well as food safety issues under routine working conditions. In fact, some new positions (e.g., ISLIs) were created to augment the current activities of traditional inspectors and enhance coordination with other agencies, such as Customs and Border Protection (CBP). In addition, FSIS has implemented several Directives and drafted several others that address how Agency field personnel should respond to threats against the food supply that rise to a Threat Condition Orange or Red as declared by the Department of Homeland Security (DHS). This large presence of FSIS field personnel in the various segments of the food supply chain provides onsite human surveillance to help deter attacks. Finally, FSIS has

initiated a comprehensive, 2-year training and educational effort that is designed to reach every employee in the agency. The main purpose of this effort is to ensure that each employee fully understands his or her role and responsibility in preventing or responding to an attack on the food supply.

Surveillance and Monitoring Systems

FSIS has a number of surveillance and monitoring systems that if modified, can provide early warning of an attack on the food supply. These include:

- Performance Based Inspection System;
- Automated Import Information System;
- Planned Compliance Program ;
- Consumer Complaint Monitoring System;
- Meat and Poultry Hotline;
- Food product recalls; and
- Laboratory Electronic Applications for Results Notification (LEARN).

FSIS laboratories analyze samples for residues, pathogens, and a select set of agents of concern as intentional adulterants. In addition to sharing results internally via LEARN, FSIS also participates in several multi-agency monitoring systems, including the Food Emergency Response Network, the Electronic Laboratory Exchange Network, the CDC-sponsored Laboratory Response Network, and the planned International Trade Data System. These systems currently provide information that can serve as an early warning indication of an attack on the food supply. Future enhancements will further improve the utility of these systems to function as food shields.

Countermeasure Development

FSIS has developed suggested countermeasures for high-risk food products for both the facility and transportation components of the supply chain. The results of the vulnerability assessments indicate that the following four factors are common to food products identified as being at higher risk:

- Large batch size, resulting in large number of servings;
- Short shelf life, resulting in rapid turnaround at retail and rapid consumption;
- Uniform mixing of contaminant into food; and
- High accessibility to critical points along the farm to table continuum.

Facility countermeasure recommendations include:

- Improve physical security to restrict access to authorized personnel, especially around critical points;
- Screen, badge, and train employees, and restrict access to critical production (processing, distribution, and retail) areas;

- Improve process security by monitoring critical operations, reconfiguring systems (e.g., increase use of closed systems), and changing design parameters (e.g., pasteurization temperature); and
- Ship products in tamper-evident packaging.

Transportation countermeasures include:

- Enhance cargo security at seaports to limit opportunities for product theft and adulteration;
- Use of tamper-evident seals and locks on trucks, tankers, and shipping containers; seals should be numbered, difficult to counterfeit, and recorded on shipping documentation;
- Screen truck drivers through background investigations and train to raise food security awareness;
- Maintain chain of custody security information from suppliers/shippers; and
- Develop MOUs with CBP and the Transportation Security Administration within DHS to help improve the security of food products during transportation.

Distribution/warehouse countermeasure recommendations include those described above for facilities.

FSIS, in coordination with DHS, will work with the Industry Sector Coordinating Council to:

- Validate the vulnerability assessment methodology; and
- Evaluate the utility of countermeasures by screening for regulatory authority, cost-effectiveness, and technical feasibility.

In addition, FSIS is partnering with other federal agencies, such as CDC, FDA, DHS, EPA, law enforcement and intelligence agencies, and state and local health departments to share information and strengthen coordination for emergency response.

FSIS is also participating in efforts to work with the governments of Mexico and Canada to improve food security awareness, coordination and cooperation with these important trading partners.

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