

THE INCREASED COST OF SECURITY TO THE FOOD INDUSTRY SINCE THE
EVENTS OF SEPTEMBER 11, 2001

By

Henry B. Bongers

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Thesis Chair: Dr. Thomas Anderson

THE UNIVERSITY OF WISCONSIN-WHITEWATER

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The University of Wisconsin-Whitewater

Thesis Approval

Henry B. Bongers

Date: May 5, 2004

Committee Members: Dr. Thomas Anderson _____

Dr. Alvaro Taveira _____

Dr. Michael Fagel _____

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Abstract of Thesis

Henry B. Bongers

Safety Studies

The Increased Cost of Security to the Food Industry Since September 11, 2001

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Dr. Thomas Anderson, Thesis Chair

The University of Wisconsin-Whitewater

The objective of this study is to describe the increased security cost to the food industry after the terrorist events of September 11, 2001. This includes government required initiatives and industry expectations.

A detailed analysis was made of the increased security costs at all 42 facilities in one large company. The total cost to the company was divided by forty-two to arrive at an average cost to each facility. This cost was extrapolated to the estimated four hundred thousand food processing facilities worldwide to arrive at an estimated total cost to the industry.

The increased cost to the company for compliance with programs and policies was \$496,010, or an average of \$11,810 per facility for the first year. Extrapolating to the whole industry this is an increase in security cost of U.S. domestic facilities of \$2.4 billion and to the entire worldwide industry of \$4.7 billion. The costs to the company for physical security will be \$222,200 for the first year for an average cost of \$5,290 to each facility. Future costs to the company will be \$1.0 million annually or \$24,606 per facility.

This includes physical security, program compliance, and training. Future costs to the U.S. domestic industry will be \$4.9 billion and \$9.8 billion annually to the worldwide industry to maintain the security levels.

The terrorist events of September 11, 2001 increased the awareness of the vulnerabilities of the food industry. This increased awareness resulted in requirements to improve security. The requirements came from both the government and private industry expectations. These requirements result in increased costs to the food industry.

1. Introduction

The purpose of this paper is to show the cost of increased security to the food industry, a cost brought on by both governmental and industry pressures. Those influences have placed an additional financial burden on the food industry.

On May 18, 2002, the World Health Assembly adopted a resolution that expressed concern about threats against civilian populations. These threats were the use of biological, chemical, and radio nuclear materials. The concern is directed toward any individual or group that seeks to gain personnel, political, or financial gain through the deliberate contamination of food. The objective, as identified by the World Health Organization (WHO), is to cause widespread incapacitation and injury and to effect terror and panic. WHO identifies civilian populations as more vulnerable than military personnel since the civilians are of all ages and health status.

There are many instances where food has been deliberately sabotaged for gain. In 1984 members of a religious cult contaminated salad bars with *Salmonella typhimurium*, causing 751 cases of salmonellosis (2). In 1996 a disgruntled laboratory employee deliberately infected food to be consumed by colleagues with *Shigella dysenteria type 2*, causing illness in 12 people (1). The World Health Organization states that while few incidents or threats of deliberate contamination of food with chemical, biological, or radio nuclear agents on a massive scale have been documented, it is prudent to consider basic counter measures.

Chemicals that can contaminate food include pesticides, mycotoxins, heavy metals,

and other acutely toxic chemicals such as cyanide. A chemical agent in cooking oil sold in Spain in 1981 injured 20,000 and killed over 800 (1). Watermelon grown in soil treated with aldicarb resulted in illness in 1,373 people (1). An unintentional outbreak of hepatitis A in China, associated with eating raw clams, sickened 300,000 people (1). Deliberate contamination of food might be easier to control than an airborne chemical or biological attack. Air movement, particle size, stability of the agent, and dose are all variables that make an airborne attack an uncertainty.

Deliberate attacks can cause economic disruption. Citrus fruit exported from Israel to several European countries was contaminated with mercury and led to a significant trade disruption (1). Alleged contamination of Chilean grapes with cyanide in 1989 led to a recall of all Chilean fruit in Canada and the USA (1). The publicity resulted in a boycott by American consumers. Damage from this allegation led to the losses of several hundred million dollars. More than 100 growers and shippers went bankrupt (1). The disruption caused by hoof and mouth disease in the United Kingdom and Mad Cow disease also shows how food supplies can be affected internationally.

September 2001 the United States General Accounting Office presented its report to Congressional Committees on Bioterrorism – Federal Research and Preparedness Activities. The research for this report was gathered from January through September 2001. This report was constructed prior to the events of September 11, 2001 (9/11) and shows the history and proposed budgets of agencies in combating terrorism. It is important to see what the budgets and associated costs were prior to the events of 9/11.

September 11, 2001 terrorists struck the World Trade Center, Pentagon, and had one plane thwarted. One result was a change in focus of security within the food industry. Companies in the food industry were asked by their customers to re-examine the security of products. The vulnerability of the food industry was known and had been studied by the World health Organization. The United States government developed two initiatives, the Food and Drug Bioterrorist Act and the Customs – Trade Partnership Against Terrorism (C-TPAT). The effects those events had on the government and policies implemented after 9/11 is far reaching.

In the past, Congress passed several laws aimed at preventing the acquisition and use of chemical or biological weapons from 1989-1996. The National Defense Authorization Act for fiscal year 1997 (P.L. 104-201) authorized \$97 million for domestic emergency assistance programs (3). This includes the implementation of programs providing training, advice, and the loan of equipment to state and local emergency response agencies and assistance in establishing medical strike teams.

The USDA Animal and Plant Inspection Service had no funding for developing

educational materials and training programs specifically dealing with Bioterrorism. This was funded at \$0.2 million for fiscal year 2001 (3). The Health and Human Services – Food & Drug Administration had funding for \$0.1 million for improving capabilities to identify and characterize food borne pathogens and identifying biological agents using animal studies and microbiological surveillance (3). This was increased to \$2.1 million in fiscal 2001 (3). In addition to food protection, the FDA is responsible for medical countermeasures. A portion of the revenue was spent in “tabletop” exercises simulating the release of a biological agent (3).

The FDA budget is not limited to food protection issues. Although participating in this exercise some FDA and USDA officials have said that they felt overlooked in Bioterrorism related planning and policy (3). Presidential Directive 62 was developed without overtly including the USDA, even though the USDA would have key responsibilities if terrorists targeted the food supply (3).

The Federal Response Plan is authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288, as amended). The Stafford Act describes how the Federal government is required to respond to domestic situations in which the President has declared an emergency requiring federal disaster assistance. The Department of Health and Human Services (DHHS) is the primary agency for function #8 of the Stafford Act – Providing assistance for public health and medical care needs. The USDA is one of the agencies providing support under this function. The USDA has become involved in Bioterrorism because of the potential of the food supply being used

as a vehicle for a biological attack against the civilian population. The USDA received little funding for activities on Bioterrorism (Table 1).

| TABLE 1 - USDA Funding | Fiscal Year | | | |
|---------------------------------------------------------|-------------|------|------|-------|
| Program/Initiative | 1998 | 1999 | 2000 | 2001 |
| Agricultural Research Service | | | | |
| Research Activities – Detection of Biological Agents | \$0 | \$0 | \$0 | \$0.5 |
| Animal and Plant Health Inspection Service | | | | |
| Preparedness Activities – Education and Training | \$0 | \$0 | \$0 | \$0.2 |
| Total | \$0 | \$0 | \$0 | \$0.7 |

The Food Safety Inspection Service (FSIS) routinely responds to actual and potential food-borne disease outbreaks. The response to this kind of attack would mirror the response for any food-borne disease outbreak. The FSIS has not received any funding to address Bioterrorism attacks. There was no budget for any of these activities until fiscal year 2001, before the events of September 11.

Bioterrorism Preparedness Act of 2002

June 12, 2002 President Bush signed into law the Public Health Security and Bioterrorism Preparedness Act of 2002. The FDA announced the regulation would require domestic and foreign food facilities that manufacture, process, pack, or hold food for human or animal consumption in the United States to register with the agency by December 12, 2003. This is expected to enhance the FDA’s ability to regulate more than 400,000 domestic and foreign facilities that ship food to or through the United States.

This study is of the effect of terrorism on the industry. The FDA estimates there are 400,000 facilities that will be required to register under the act. The cost of security to the industry is based on the number of facilities required to register. These facilities are

domestic or foreign that: manufacture, process, pack, distribute, receive, or hold food for consumption by humans or animals. This study does not include farms, restaurants, retail food establishments, non-profit establishments that prepare and serve food, and fishing vessels that do not engage in processing. Also not included are establishments that are exclusively monitored by the USDA. These facilities may incur the same costs but are not included in the estimated number of facilities required to register.

There are five titles to the FDA Bioterrorism Act,

Title I – National Preparedness for Bioterrorism and Other Public Health Emergencies;

Title II – Enhancing Controls on Dangerous Biological Agents and Toxins;

Title III – Protecting Safety and Security of Food and Drug Supply;

Title IV – Drinking Water Security and Safety;

Title V – Additional Provisions;

The main provisions of the Act that affect Food Processors, Manufacturers, Transporters, and Storage Facilities are contained in Title III. These are:

- *Section 305 – Registration of Food Facilities*

The Bioterrorism Act requires the owner, operator, or agent in charge of a domestic facility to submit a registration to the FDA. This facility must manufacture, process, pack, or hold food for human or animal consumption. Domestic facilities must register even if the food does not reach interstate commerce. Foreign facilities that perform the same activities must also register unless the food undergoes further processing or packaging. Foreign facilities must include the name of the U.S. agent. Registration does not include farms, retail food establishments, or restaurants where food is prepared for or served directly to the consumer. Under the Bioterrorism Act it is a prohibited act for a

facility to not be registered by December 12, 2003. The FDA can bring criminal action in federal court to prosecute persons who commit a prohibited act. Penalties are given in the Food, Drug and Cosmetic Act under Section 301. There are multiple penalties listed under this section. These range from up to a year in prison and/or up to \$1,000 fine; to up to 10 years in prison and/or up to \$250,000 fine. Unregistered foreign facilities will have the shipment held at the U.S. border and refused entry.

Registration can be done on the Internet or through the mail system. There is no fee to register. The FDA estimates 202,000 U.S. facilities and 205,000 foreign facilities will be required to register. Information taken from the FDA Website states registration is estimated to take two to twelve hours per response for Form 3537 and one hour per response for form 3537a (10).

- *Section 306 – Establishment and Maintenance of Records*

Section 306 requires the FDA to establish requirements for the creating and maintenance of records needed to determine the immediate previous sources and the immediate recipients of food. These records are to allow the FDA to address serious health threats to humans or animals. Those facilities required to maintain records are the same as those required to register. Existing records can be used to fulfill the requirements of this Title, however all information required by the Title must be available when requested by the FDA.

- *Section 307 – Prior Notification*

Section 307 requires that prior notice of food shipments into or through the United

States be given to the FDA no less than 4 hours nor more than 5 days before arrival at the border. The notice must include a description of the article, the manufacturer, shipper, country of origin, and the anticipated port of entry. Prior notices must be submitted electronically through the FDA's web based Prior Notice System. The FDA estimates that it will take one hour of time to complete each entry. Each entry consists of 2.6 articles of food. Each article would take an average of 23 minutes to complete. This is taken from OMB Approval #0910-520 on the FDA Website (11).

- *Section 303 – Administrative Detention*

Section 303 authorizes the Secretary, through the FDA, to order the detention of food if an Officer, or qualified employee finds credible evidence or information indicating an article presents a threat of adverse health or death to humans or animals.

FDA Security Guidelines

The FDA also published Security Guidelines for Food Establishment Operations.

These have five main points to address:

- i) Management
- ii) Human Element – staff
- iii) Human Element - public
- iv) Facility
- v) Operations

- *Management*

“Recommendations of the FDA commence with the facility management preparing for the possibility of tampering or malicious, criminal, or terrorist actions” (8). The first recommendation is assigning the responsibility for security. This is to be given to

“knowledgeable” individual(s). It is expected that an initial assessment of food security procedures be completed with a management strategy including preparation and response. The FDA recommends planning an emergency evacuation including security breaches. The floor plan of the facility should be kept off-site in a secure location. Management should be familiar with the local community emergency response system. Security should be built into job performance so that all staff becomes alert to security issues. A communication system should be established to spread concerns about security issues. Finally, the FDA recommends a strategy for communicating with the public about food security issues.

Supervisors are also addressed in FDA Security. An adequate level of supervision should be provided to all staff. This includes services such as cleaning and contractors. Routine security checks of the premises should be done to look for signs of tampering or other malicious activity. There should be a recall strategy that identifies responsible persons and their back up. The recall should provide for proper handling and disposition of recalled product. Customer contacts should also be a part of the recall program. Management needs to have a strategy for investigating threats or information about malicious activity.

- *Human Element – Staff*

The FDA recommends examining the background of all staff as appropriate to their position. Access to sensitive areas and how closely they are to be supervised are also issues when considering a background check. Screening should be applied equally to all

staff. Supervisors should know who should be on premises and where their workstations are for each shift. This information should be kept updated. A system of positive identification of the workforce should be established, this includes badges, uniforms, etc. These should be collected when the employee is no longer associated with the company.

Levels of access should be determined for security within the facility. Staff should be assessed as to their level of access within the facility. Staff should also be restricted in their access to particular parts of the facility and only during their work hours. Systems to limit access must be continually updated when changes to staff occur. These include keypad codes, electronic swipe cards, key locks, etc. Personnel items should not be allowed on the establishment. Personnel lockers should be on a regular inspection schedule. Food security awareness should be part of the staff-training schedule. This includes information on prevention, detection, and response to suspicious activity

- *Human Element – Public*

The FDA recommends inspecting incoming/outgoing vehicles, packages, and briefcases for suspicious activity (8). These are listed as “to the extent practical”. Access to the establishment should be restricted. All visitors should have a valid reason for being on the premises. The identity should be verified. Access to locker rooms and food handling areas should be restricted.

- *Facility*

The physical security of the facility should be protected with fencing or other deterrent, when appropriate. Doors should be secured when not in use or being

monitored. Restricted areas should have the number of entrances minimized. Bulk unloading equipment and areas should be secured. A responsible person should account for all keys. Security of the premises should be monitored. A system of controlling vehicle parking should be established. Parking should be separate from food processing, storage, and utility areas.

Access to the laboratory should be restricted. Lab materials should remain in the lab. Approved employees should only access sensitive materials. A system of positive controls on chemical reagents should be developed. There should be investigations into missing chemicals. Proper disposal procedures for chemicals should be developed and followed. This should be in a manner that minimizes the potential for use as a contaminate.

Pesticides and cleaning chemical should be locked with access limited. The amount should also be minimized. Storage should be away from food handling areas. Chemicals must be properly labeled and used according to label instructions. Knowing what chemicals are required to be present in the facility is also important. Variations outside the normal inventory should be investigated.

- *Operations*

Incoming materials should only be acquired from properly licensed, permitted, and registered suppliers. Steps should be taken to ensure the supplier practices appropriate security. Requesting locked and/or sealed containers. The transporter should be able to verify the location of the load. Delivery schedules should be established and unexplained

or unexpected deliveries should be investigated. Shipping documents should be inspected for suspicious alterations. Incoming materials should be inspected. Suspect food should be rejected.

The facility should set up a system for handling distressed, damaged, returned and rework products. A work in progress area should be established for materials in use. Missing or extra stock should be investigated. The FDA recommends securing product labels and packaging materials. Reuse of containers should be minimized.

Access controls should be established to airflow, water, electricity, and refrigeration systems. Water systems and trucks should be equipped with back flow devices. Testing water systems for potability should be done on a regular basis with investigations of non-regular results. Alternate sources of water should be identified for use during emergency situations where normal water systems have been compromised.

Public storage facilities should provide appropriate security measures. These facilities should be randomly inspected. Requesting all shipments have locks/seals with the seal number provided to the consignee. An inventory of finished products should be maintained and deviations outside the norm should be investigated.

Procedures for ensuring the security of incoming mail should be established. These include locating the mailroom away from food processing areas, securing the mailroom, and following the United States Postal Service guidance.

Appropriate clearance should be given only to those cleared for access to computer systems. A system for revoking access when it is no longer required or the employee is

no longer with the company. A system for tracking computer transactions should be established. Appropriate virus protection should be maintained and the system should be backed up on a regular basis. The computer security system should be validated.

Customs – Trade Partnership Against Terrorism

The events of 9/11 caused the closure of all borders into the United States. This stopped all commerce in and out of the country. The Customs Service is identifying a system to allow items into the country at a faster rate. This is in response to the potential of another attack. The system is known as the Customs – Trade Partnership Against Terrorism (C-TPAT). C-TPAT is designed to address security procedures of all components of a global supply chain. These components are production, transportation, and distribution (9). The priority of Customs is protecting the U.S. Border. C-TPAT is a voluntary program in which all participating companies that import into the United States cooperate with Customs in establishing security programs. Customs will certify members of the program.

Customs has asked companies to join the partnership by agreeing to identify security steps taken within the company. Customs will do an analysis of the steps and determine if the steps are sufficient. An application for partnership is sent to Customs for review. An initial determination is made of those steps before the company is accepted into membership. Customs also does an on-site review of the company and their supplier(s). As of January 8, 2004 there were 5,200 companies in the Custom's application database (5). These were not broken down into industry categories. The C-TPAT application

process is a two-step process. The first step is to sign and submit an agreement to participate. The second step is to complete and submit the questionnaire. There are two major benefits of this program to Customs 1) border security is enhanced; and 2) resources can be targeted to higher risk importers since the low risk importers are identified.

Members that are importing can expect a reduced number of inspections, a specific account manager for their firm, access to the C-TPAT membership list, and greater emphasis on self-policing. Reduced inspections could save \$500 or more per container and the shipments of a member go to the top of the list for entry (9). The Security Profile Supplement reviews eleven segments of facility security. These are:

1. Facility Security/Theft Prevention – Information is requested with regards to facility security. This includes building access controls, use of security personnel, electronic surveillance, building materials, and perimeter fencing and lighting.
2. Personnel Security – Requests information about employees in regard to personnel security. This includes pre-employment and periodic background review procedures, issuance and use of employee identification, education in security, documentation fraud, computer security and procedures for reporting and managing problems related to employees.
3. Identification system – requests an outline of procedures governing the use and issuance of employee identification.
4. Education/Training Awareness – requests an outline of security awareness

training programs for employees.

5. Personnel Screening – requests pre-employment screening procedures.
6. Visitor Controls – requests procedures for visitor security.
7. Transportation – requests procedures used in tracking cargo, containers, and trailers to their final destination.
8. Product, Production, Assembly, and Packing – reviews security measures in place for product production areas to include access control, fencing, the use of security personnel, and inventory of packaging materials.
9. Receiving, Shipping – Reviews security for receiving and shipping process. This includes access control, container security measures, high security seals, procedures for reporting inventory discrepancies, vehicle/container inspection procedures, and the use of security personnel.
10. Service Provider Requirements – requests information on written standards for service provider’s security. Do the providers participate in C-TPAT?
11. Self-Policing – As a member of C-TPAT a customized, internal self-policing program should be developed and implemented in order to review your security procedures on a regular basis. An outline is requested in regards to the implementation or existence of such a program

FDA Funding Prior to September 11, 2001

The FDA has responsibilities for activities on Bioterrorism. These are spread throughout the agency. The FDA is responsible for “the seizure, removal, and/or

destruction of any contaminated and unsafe products” (3). The FDA revised its’ Emergency Operations Response Plan to include Bioterrorism preparedness and response. Congress had allocated \$5 million to the FDA for Bioterrorism activities. The

| TABLE 2 – FDA Bioterrorism Funding | Fiscal Year | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|--------|
| | 1998 | 1999 | 2000 | 2001 |
| Program/Initiative | | | | |
| Center for Biologics Evaluation and Research | | | | |
| Pre-market evaluation of vaccines, develop vaccines | * | \$1.2 | \$7.5 | \$7.0 |
| Centers for Devices and Radiological Health | | | | |
| Develop data requirements for approving devices intended to detect exposure to or infection with biological agents | * | \$0.1 | \$0.8 | \$0.9 |
| Center for Drug Evaluation and Research | | | | |
| Determine procedures for allowing use of not-yet-approved drugs, specify data needed for approval and labeling, gather and supply information | * | \$0.2 | \$0.4 | \$0.7 |
| Center for Food Safety and Applied Nutrition | | | | |
| Monitor food supply, communicate with state and local officials | * | \$0 | \$0 | \$0.3 |
| Center for Veterinary Medicine | | | | |
| Communicate with state officials, held meeting on Bioterrorism | * | \$0.1 | \$0.1 | \$0.3 |
| National Center for Toxicological Research | | | | |
| Define biological mechanisms of action underlying toxicity of products, identify indications of toxicity associated with biological agents | * | \$0.2 | \$0.1 | \$0.5 |
| Office of Regulatory Affairs | | | | |
| Communicate with other agencies and the public, conduct investigations | * | \$0 | \$0 | \$1.5 |
| Total | * | \$1.9 | \$9.0 | \$11.7 |

* Agency noted funds were expended but did not report levels (dollars are in millions)
HHS had also funded \$7.5 million for vaccine projects. Reported funding for FDA

Bioterrorism Activities is given on Table 2 (3).

In the comments for the United States General Accounting Office Bioterrorism – Federal Research and Preparedness Activities, September, 2001 it was noted that “Quite

possibly a Bioterrorism attack may initially be observed as a naturally-occurring epidemic of unknown origin.” This is important in that the state and local health facilities would be the first to respond. The tables show that prior to 9/11/01 there was limited funding to respond to a Bioterrorist attack.

Department of Homeland Security

The Department of Homeland Security (DHS) is a direct response to the events of 9/11. The purpose of this organization was to bring all elements of prevention, response, and recovery under one umbrella. This would facilitate communication between the responsible organizations. Food protection organizations such as the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) were moved from the Department of Health and Human Services (DHHS) to the DHS. This created the largest department in the government. It was also the most extensive reorganization of government in the last fifty years (4).

The strategic objectives of the DHS are (4):

- i) Prevent Terrorist attacks within the United States
- ii) Reduce America’s vulnerability to terrorism, and
- iii) Minimize damage and recover from attacks that do occur.

Six major areas are identified within the mission of the DHS. Among these are Border and Transportation Security. Virtually all communities in the world are connected to the transportation network. The DHS is charged with promoting an efficient and reliable flow of goods and services across the borders while at the same time preventing terrorists from using this network to deliver weapons of terrorism. The transportation of

food is of serious concern to the Customs and Border Patrol.

There have been nine Homeland Security Directives (HSPD) published since the events of September 11, 2001. The purpose of the directives is to record and communicate presidential decisions about homeland security policies of the United States. The first was published October 29, 2001. The first was the organization of the Homeland Security Council. The most recent, HSPD-9, issued January 30, 2004 addresses the agricultural and food systems and establishes priorities.

The United States spends roughly \$100 Billion per year on homeland security starting with the 2003 fiscal year budget proposed in February 2002 (4). This includes the Custom Service's and FDA's proposed legislation and increased federal spending to ensure the implementation of their initiatives.

The agri-food system includes all aspects of industry from the farm to retail sales. The system is vulnerable to terrorism due to three main factors (6).

1. "Geographical dispersion increases the cost of maintaining security across the system
2. Products intermingle from many sources and at many levels, increasing the possibility that contamination could spread from a single source
3. Because of levels of trade (both imports and exports) there is a need for international security of both U.S. exports and U.S. imports."

Agriculture is identified as a critical infrastructure for the U.S. and any attack on the industry would have a severe effect on the economy. While no terrorist acts have been

identified against the food supply, accidental events have had serious consequences. These include the outbreak of BSE in the United Kingdom cattle industry with a cost of \$5.8 billion, accidental contamination of livestock feed with dioxin in Belgium – \$850 million, and simulated outbreak of BSE in California Dairy Industry - \$4 – 13 Billion (6). An economic loss of this magnitude could also be incurred as a result of a rumor. The U.S. beef industry suffered when one calf believed to be infected with mad cow disease was found in a herd. Countries started to ban the import of U.S. beef.

Suggested solutions to prevent the accidental or intentional introduction of foreign organism into the U.S. are inspection of imported soil and plant material. Establish National Crop nurseries to develop resistant genes, and prioritize potential threats to economic plants such as wheat (7). Examples of these are Dutch elm disease, Chestnut Blight, Citrus Canker, and plum poxvirus. There are many voids in the security of the U.S. plant protection systems.

A provision of the Bioterrorist Act gives the USDA responsibilities for Animal and Plant Health Inspection (APHIS) activities. The USDA has increased protection responsibilities against terrorist use of plant and animal disease organisms. The USDA has been directed to implement a central automated record-keeping system to track the status of animal and plant shipments and to develop strategies for dealing with intentional outbreaks of plant/animal disease from acts of terrorism. This is the only provision for the USDA under the Bioterrorist Act and the Department of Homeland Security

2) Materials and Methods

A survey was sent to the membership of the National Safety Council's Food and Beverage Section. There are 89 members of the National Safety Council's Food and Beverage Section. This survey asked if the membership had calculated the cost of additional security or the cost of complying with the FDA Bioterrorist Act. Two members responded that they were aware of the requirements and their facility was registered. The members did not know the cost of gaining compliance. Personal discussions at FDA Bioterrorist Act training and C-TPAT training with reporting companies that have participated yielded nothing on the costs of security due to these initiatives. Companies at the Customs training in San Francisco, October 2003 had not calculated the costs of complying with C-TPAT or the FDA Bioterrorism Act.

One company (unnamed to protect confidentiality) was evaluated in detail. The company registered 42 facilities with the FDA under the Bioterrorist Act. Costs for this company were calculated for training, registration activities, response to customer inquiries, and capital proposals for physical security needs. Total costs were divided by 42 to determine an average facility cost. The average cost was multiplied by the number of facilities that the FDA projected to register. The total is extrapolated as the additional cost to the food industry as a whole. It should be noted that this company has facilities that are small, ranging in size from 9 to 200 employees. Costs that are fixed such as training responsible people do not change, but the training of a larger workforce would cost more. The costs to corporations with a larger employee base would provide

additional information not available for this study.

Information on the threats of Bioterrorism was drawn from published articles and previous funding for the Food and Drug Administration (FDA), United States Department of Agriculture (USDA), and the Department of Homeland Security (DHS). Discussions and communication with other sources formed the remainder of this paper.

Calculating the Cost

The subject company, hereafter known as the Company, has 42 FDA registered facilities. Formulas for calculations are listed Appendix 1. The company's first step in response to the events of September 11, 2001 was to convene a meeting of the executive board to determine the immediate threat to the company. All facilities were asked to submit a list of visitors to their facility for the previous three days and a copy of their visitor sign-in log. Analysis of these logs showed there was a lack of discipline in knowing who was in the facility. The Visitor Logs did not match against the list of visitors. The Executive Board asked that security policies be developed to ensure all visitors were signed into and out of each facility. The Board requested a list of other security issues and recommended policies. The cost calculations start with the formation of committees.

Policy and Program Compliance Cost

Three committees were formed to develop policies on the following principles:

- Physical security of the facility
- Product/ingredient security
- Employee Security

These committees were comprised of a mid-level Safety Manager and four first line supervisors. The cost of these meetings was \$2,677 to develop their policies. There were four policies issued to the forty-two facilities. These were:

- SP 2.01 – Door Security
- SP 2.02 – Visitor Access Policy
- SP 2.03 – Security Log Maintenance
- SP 2.04 – Workplace Violence.

The total cost of developing four security policies was \$10,708. Each policy was established to utilize the principles of security. The policy had to meet the test of deterring, delaying, or detecting, a threat. Threats from both internal and external sources were considered.

A requirement of the Door security policy is to physically check the exterior doors once per shift to ensure all unmonitored doors are secure. A time of 30 minutes was the average time to complete a perimeter check of all doors at a facility. The cost of each check is \$15.51. The Company has forty-two facilities. Sixteen facilities work twenty-four hours a day, seven days a week. The sixteen facilities perform 3 checks each day that cost \$16,978 each. Three plants work sixteen hours a day five days per week have a cost of \$8,063 each, and twenty-three plants work five day per week with one shift have a cost of \$4,031. The total cost to the company of performing these checks is \$388,555.

The mid-level safety manager was also requested to learn the interpretations of the FDA Bioterrorism Act. (Hereafter referred to as “the Act”) This was accomplished through an off site training session. The cost of attending the training sessions was \$1,233. Costs included salary, benefits, transportation and expenses from Rockford, IL to

Minneapolis, MN for two days.

Each facility in this study had to develop the information required by the Act in order to register. This took approximately one hour for each facility to assemble. One hour is what the FDA lists on their website as the average time to gather this information. The facility manager was responsible for completing the form with the information. The cost of this was \$2,181 to the company. The cost of registering the facilities on the FDA web site was \$909. An unexpected cost of the Act was the request of customers for verification of registration. There was one secretary that responded to these requests. This required four hours per day for the first three weeks of December 2003 and two hours per day the final week of December 2003. The time was determined to be sixty hours the first three weeks and 10 hours the last week. The cost to the Company was \$1,190.

A Quality Managers meeting included four hours to review the FDA Bioterrorist Act and The Customs Trade Partnership Against Terrorism initiative. There were 33 mid-level managers, one Vice President, one director, and one Attorney/consultant for four hours. The cost of this meeting was \$7,201. It is important for the QA managers to understand the requirements of the Act since they interact with the FDA.

Prior to the December 12, 2003 registration deadline there was a 45-minute meeting with a VP, Director, and Safety Manager to review implementation of the Act. This meeting cost \$124.

The FDA also requires prior notification to the FDA of all shipments into the United States. The cost of prior notification to this company is \$25 per shipment. The

company expects to import 500 shipments so the cost of prior notification is \$12,500. An emergency contact number must be provided as part of the prior notification requirements. This number must be manned twenty-four hours per day. Hiring an answering service to notify the emergency contacts costs \$312 per year plus \$0.68 per call the service makes. There is no estimate for emergency calls so no further costs were calculated for this requirement.

An alternative to registering facilities in-house is to use a consultant. “Food-Agent.com” offers registration services at \$300 for a domestic facility, \$500 for a single foreign facility, and \$300 for subsequent years. The fee is \$300 in year-one and \$150 in subsequent years, for two – ten facilities. The cost to industry to register with the FDA using one of these services would be \$60-120 million.

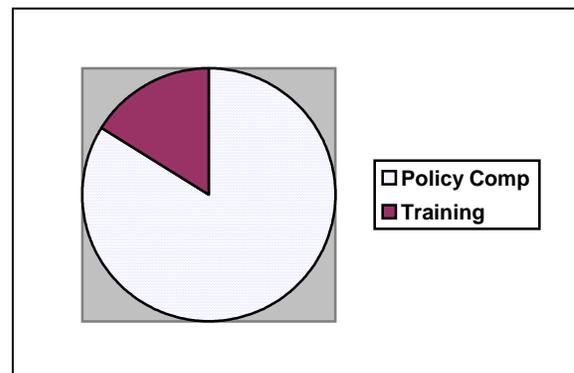
Another Government initiative since 9/11 is the Customs Trade Partnership Against Terrorism (C-TPAT). The Company had one mid-level Safety Manager work on this project. There was training at a satellite Conference in Chicago. This came to \$423. Customs had a three-day conference on understanding C-TPAT in San Francisco. The Company sent three managers for implementation, the safety manager, an import manager, and a Quality Manager. Costs for these three people to attend this conference were \$5,307. A questionnaire had to be completed for application to this program. Three managers worked on the responses. The cost to complete is \$1,039. Customs also requires a twenty-four hour emergency contact. This cost was included in the FDA requirement. Customs will visit a facility from the company to verify the security

measures. The cost for this visit will include four managers for eight hours, or \$1,385.

In the FDA Security Guidelines (8) there is a recommendation to have a person responsible for coordinating security at each facility. There were no knowledgeable persons at any of the Company’s forty-two facilities. An arrangement was made with a security consultant. The consultant did a security analysis at one facility in preparation for a one-day security workshop. The visit cost \$7,500. The training workshop was held in Chicago, Illinois and cost \$3,000 for the consultant. There were fifty-one in attendance

| Table 3 – Dollar Cost to Subject Company | |
|------------------------------------------------------|-------------|
| Issue | Cost |
| Policy Development | \$ 10,708 |
| Policy Compliance | \$ 388,555 |
| Training FDA Bioterrorism Act | \$ 1,233 |
| Assemble registration information | \$ 2,181 |
| Registering 42 facilities | \$ 909 |
| Responding to requests for registration confirmation | \$ 1,190 |
| QA Managers meeting to review requirements | \$ 7,201 |
| Team meeting to review implementation | \$ 124 |
| Prior Notification | \$ 12,500 |
| FDA Prior Notification Public Outreach Program | \$ 769 |
| Emergency Contact | \$ 312 |
| C-TPAT Satellite Conference | \$ 423 |
| Customs Training Conference | \$ 5,307 |
| Complete Customs Questionnaire | \$ 1,039 |
| Security Coordinator Training | \$ 63,559 |
| Total = | \$ 496,010 |
| Cost per facility registered (42) = | \$ 11,810 |

from the United States, Canada, and Mexico, including five Human Resource Managers, two Safety Managers, One Vice President, and one Director. The cost to have fifty-one managers and supervisors in attendance



was \$63,559. The total incurred costs to this company in response to increased security programs due to the events of 9/11 calculates as follows (table 3).

The costs are also broken down to show 86% is for policy compliance and 14% for training costs. (Graph #1)

Physical Security Cost

In the Company nine of facilities requested capital funds for improving physical security. The costs of the capital expenditure requested to upgrade physical security at the company was \$222,200 for 2004. (Table 4) With 21% of the facilities requesting capital for physical security, the average cost to a facility in the company is \$5,290.

| Table 4 – Cost of Physical Security - 2004 | | Cost | Maintenance Cost |
|---------------------------------------------------|----------------------------------------------------------------------------------------|------------------|-------------------------|
| Location | Project | | |
| Plant A | Door Security Upgrade | \$15,000 | |
| Plant A | CCTV System | \$15,000 | |
| Plant B | Perimeter Parking lot Fence | \$15,000 | |
| Whse C | Security Door, Vestibule, Maintenance Door | \$ 700 | |
| Plant D | CCTV, Electronic Locks | \$20,000 | |
| Plant E | Security Entrance, Front Gate, landscaping, Panic Alarm, Shipping / Receiving Security | \$30,000 | |
| Plant F | Electronic Locks, CCTV, Panic Alarm | \$35,000 | \$1,300 |
| Plant G | Security Gates, Replace Access Doors | \$41,000 | |
| Whse H | Perimeter Fence with Gates | \$15,900 | |
| Plant I | Perimeter Fence, Decorative Fence, CCTV, Upgrade Security monitoring | \$34,600 | \$3,622 |
| Total = | | \$222,200 | \$4,922 |

The cost of future security is driven by what the customer expects. The FDA

Guidelines fail to place any emphasis on recommended practices. Each point is a stand-alone. It is common for companies to request a “security assessment” be done of the location and then use the recommendations to score the facility. The basis of the score is to then grade the security vulnerability of the facility. These assessments are currently not done by security specialists, but by food safety specialists. This grade is not a true indication of security at the facility since threats and vulnerability are not known.

There are food safety professionals using the recommendations as a checklist to evaluate the security practices of the industry. These checklists are used to compare suppliers and then determine which facility has better security. Many items on the security checklist may not be good security practice. Good security practice is determining whether a threat is deterred, delayed, or detected. One such questionnaire downgraded a facility for not having photograph identification of employees within the plant and gave points for having visitors wear smocks in the facility. The threat to the facility was not taken into consideration, only whether the item was checked as in place. The New York State Department of Health/New York State Department of Agriculture & Markets has distributed a “Food Security Survey” for facilities in the State of New York. (Appendix 2) This is a 46-item questionnaire with ten sections. It is stated to be confidential pursuant to Agriculture and Markets Law Section 23.

The Indiana State Department of Health has a Security Survey distributed by the State Health Commissioner. (Appendix 3) This is a 111-item questionnaire with 13 sections. To the layperson, having all of these items in place means good security,

regardless if there is a vulnerability or threat through the items raised. For example, the principle of concentric circles is used in security to have layers of protection between the area with the greatest vulnerability and the greatest threat of attack. Typical of these surveys is a request to fence the property. Some facilities have acres of land with little vulnerability yet the cost of fencing, at \$18 per linear foot installed is money better spent on other vulnerabilities. The survey asks for fencing, so fencing is perceived as important. These facilities are expected to install fencing around the perimeter. A large customer may believe that only the best security is acceptable and therefore demand that all items be in place or the business will be taken elsewhere.

Small businesses cannot implement all items on these checklists and may lose business or be driven out of business by market pressures. Items such as outer perimeter secured, check posts, card entry, alarm systems, positive identification and recognition systems, security inspections, random inspections of vehicles, etc are on the NYC questionnaire. The Indiana questionnaire asks if some one tests the effectiveness of strategies such as mock criminal events, criminal background checks of temporary, seasonal, and contract workers, a check of closets, toilets, storage areas for packages or anomalies, etc. A facility rating would be downgraded if the questionnaire were answered no. Eliminate hiding places in the facility is an item on a checklist. "Hiding places" cannot be eliminated in a manufacturing facility.

Detailed questionnaires are not just sent by government agencies. These are similar to questionnaires circulated by other food manufacturers. There is a twenty-item

questionnaire used by Sysco, American Institute of Baking, and Popeye's in place to rate facilities and give a "passing" score based on the items. (Appendix 4) Time is required to answer these. One hour each, per facility adds \$1,818 to the company. Customers also ask for an action plan to correct "deficiencies".

Security Analysis

Conducting a security analysis at all facilities in the company would cost \$7,500 each. That is \$1,500 per day for five days (one-day travel, two days on-site, and two days writing the report). A security consultant can analyze the threats and vulnerability and recommend the best way to use the company's resources. The cost of doing a security review at all facilities within the company would be \$307,500. That is without the expenses of travel, lodging, car rentals, and meals. Training an in-house team of mid-level managers to do the 42 security audits would cost \$143,251 so the lower figure will be used for future costs.

A review of security policies and logs to target legitimate threats and vulnerabilities should take one manager one hour per month according to the Company policy issued. The cost of this is \$372 per facility or \$15,629 for the Company.

FDA Recommendations

Not all FDA Recommendations meet the immediate needs of the company, or do not meet the Deter, Delay, or Detect principles of security and would drive costs higher.

The first of these recommendations is the employee background check. The company has 2,500 employees in 42 facilities across the United States. A background check on all employees would only show crimes that an employee received a conviction. A more accurate item would be the arrest record. Also, an employee with a conviction could easily circumvent this by not reporting residential addresses in the county for which the conviction occurred. Background checks cost \$30 each plus \$6 per county. This is the rate given the Company by their consultant. The cost of background checks for 2,500 employees would be \$90,000 using just a one county search.

Recall procedures are a part of most major food facilities and should incur no additional costs. This would also limit the impact of an event because adulterated material should be easily tracked and recalled.

Food security awareness training for all staff is also a cost. Training for the remaining 2,449 staff would be an expense that will be incurred by the subject company. The cost of this training is an average rate of \$15 per hour. This training would be at overtime bringing the total to \$22.50 each. The total is \$55,103 for all staff. This does not include the cost of providing a trainer and the travel expenses of that trainer.

Installing higher security locks for restricted areas is recommended, but may not meet the criteria of deter, delay, or detect. The cost of this has been proposed through capital expenses at some locations. The requests have ranged from \$15,000 - \$35,000 depending on the size of the facility and sophistication of the system requested. Installing these systems at all facilities would range from \$0.6 to \$1.5 million. Recommendations to

upgrade locks at all facilities would cost \$15,000 per location. It would eliminate the key and push button code locks. It is easy to update. Lost or stolen cards can be easily deactivated. The system also tracks entry through the door. Maintenance for the system is based on a service contract. The key cards cost \$5 each. A facility that has 300 users purchases a pack of 100 cards each quarter due to lost or malfunctioning cards. This cost \$2,000 per year. The company is eight times larger so the average cost would be \$16,000 per year using the Company employee count.

The total additional cost of implementing all FDA Security Recommendations is estimated to be in excess of \$1 million per facility according to Ray Pettit Enterprises, Security Consulting Firm; and \$2.2 million as stated by Target, Corp. at the C-TPAT Training Session in San Francisco, October 28, 2003.

Future Cost

Costs to the company going forward would comprise of three main categories. These are training, maintenance, and review for performance. Costs of inflation would also affect the cost of maintenance so 2004-dollar values are used. Training responsibilities include having a responsible person coordinating security at each facility. A one-day training session would cost the company \$63,559 or \$1,513 each facility. This training does not produce a “qualified” security expert. Employees need awareness training on the elements of basic security. A one hour training session would cost the company \$55,103 or an average of \$22 per employee. A company with a turnover of 10% would have an additional six people per facility to do initial training on. Training of four

replacement responsible employees would incur an additional \$5,736. This would be due to turnover, promotion, or change in duties.

The maintenance of electronic locks and monitoring sensors is calculated by taking the cost of new systems from capital requests and extrapolating that to the company. Maintenance of electronic monitoring of security systems would cost the company \$103,000 or \$2,461 per facility. The alternative is to have a member of the facility management team inspect the physical security once per day for each day the facility is not operating, that is weekends and holidays. The cost at \$32 per check is \$3,328 per weekend checks for one year for one facility. Twenty-seven facilities work five-day workweeks so the cost to them is \$89,856.

Taking the facilities that requested capital improvement requests for 2004 and dividing the dollars across the company determine the cost of physical security improvements. That equals \$4,922 per facility on average per year. Prior notification of imported products is a recurring expense if maintained at the current level would cost \$12,500.

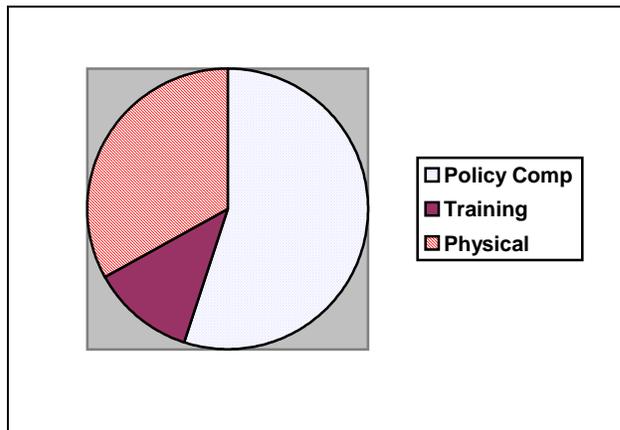
Total cost to the company is \$1.03 million per year going forward. This averages \$24,692 per facility. It includes the assessment, maintenance, and training of employees to provide security to the food system. (See Table 5) The future cost to the industry is calculated at \$4.93 billion annually for domestic food facilities.

| Table 5 Future Costs | | |
|------------------------------------------------|----------------------|----------------------|
| Project | Company costs | Facility cost |
| Continued Security Checks | \$ 388,555 | \$ 9,251 |
| Prior Notification | \$ 12,500 | \$ 298 |
| Security Training for 42 Responsible Employees | \$ 63,559 | \$ 1,513 |

| | | |
|-----------------------------------------------------|--------------------|------------------|
| Security for Replacement Responsible Employees | \$ 5,736 | \$ 137 |
| Maintenance Costs for Electronic Locks and Monitors | \$ 103,362 | \$ 2,461 |
| Monitor Security Policies and Vulnerabilities | \$ 15,629 | \$ 372 |
| Annual Awareness Training for all Employees | \$ 55,103 | \$ 1,312 |
| Security Audit | \$ 143,251 | \$ 3,411 |
| Complete one Security Questionnaire | \$ 1,818 | \$ 43 |
| Electronic Key Card System | \$ 16,000 | \$ 381 |
| Cost of Physical Security Improvements | \$ 222,200 | \$ 5,290 |
| Future Planning for Security in 2004-05 | \$ 5,749 | \$ 137 |
| Total = | \$1,033,462 | \$ 24,606 |

Planning for security going forward was done in a meeting with the security consultant. This sets the stage for the strategy going forward into the coming 12-18 month

period. The meeting cost \$5,749. Strategy for training and facility assessment was done. Training included different classes of managers to address both the internal threat and the external threat. Future costs break down as follows – policy



compliance 55%, training 12%, and physical improvements 33%. (Graph 2)

3) Results and Discussion

The FDA has estimated 400,000 facilities would register under the Act. At the FDA Community Outreach Training, March 16, 2004, in Kansas City, Missouri it was reported there were only approximately 50% of the expected facilities registered. That is 190,000 of the expected 400,000. According to the GAO (RIN: 0910-AC41) the cost of

compliance with the interim final rule is \$367 million (12). The FDA estimates the final rule mandate will be over \$261 million annually to the private industry (12). There are approximately 202,000 domestic facilities expected to register. Using an average cost of the subject company's facilities of \$11,810 the total costs to the food industry in the United States is \$2.4 billion. The cost to the global food industry is \$4.7 billion; this is well above the \$367 million projected by the General Accounting Office.

As of January 8, 2003 Customs reported 5,200 companies applied for the C-TPAT program. Customs does not have the ability to break down the applicants by industry type or SIC code. The average cost for C-TPAT to each facility in the Company was \$161. Removing this from the 205,000 domestic facilities would reduce the cost by \$32 million, or \$64 million to the global industry.

Going forward the average cost per facility is \$24,606. This figure is higher because a factor for physical security has been added. The ongoing cost of improving security will be \$4.9 billion annually to the domestic market. The added cost is based on two issues. The first is the cost of training qualified people at each location to monitor the security efforts. The second is the cost of physical upgrades. The upgrades will be a response to the FDA recommendations and the analysis of security reviews. The market will drive some improvements since there will be assessments made by unqualified auditors. Qualified security professionals should do security assessments. The assessment should not be done with a weighted checklist that is completed by food safety specialists.

4) Conclusions:

Determining what is good security will be a challenge when implementing the recommendations of the FDA. The food industry has always been vulnerable due to the scope of the business. The events of September 11, 2001 provided an incentive to reduce vulnerability. The cost of identifying specific threats from both internal and external sources has increased from both governmental and customer pressures. Threats from within an organization are difficult to reduce. The FDA Bioterrorist Act increased security costs of at least fourteen thousand dollars to the subject company facilities. There are estimates of \$1-2 million dollars per facility for implementing the security guidelines. Some of this will be borne by the industry as customers pressure suppliers to do something, even if it is not good security. The cost of complying with the FDA Bioterrorist Act, Custom Trade Partnership Against Terrorism, and implementing good security to protect against both internal and external threats is much more than the government estimates. The FDA estimated complying with the final rule would incur a cost of \$367 million. Calculations made from the experience of the company show the average facility will incur an initial cost of \$11,810 to develop policies, train employees and begin initial physical assessments to protect the facility. This equals a cost to industry of \$2.4 billion to domestic facilities and \$4.7 billion to all facilities doing business in the United States.

The maintenance of security initiatives will incur an average cost of \$24,606 per facility to implement physical security, electronic monitoring, and security awareness training of all staff. The ongoing cost to the domestic industry will be \$4.9 billion. The

cost to all facilities doing business in the United States will be \$9.8 billion.

The terrorist attacks of September 11, 2001 have resulted in the focus of security on the vulnerabilities of the food industry. The cost to defend against a threat has incurred additional costs that were not in place prior to the events of September 11, 2001. Security against terrorists is but one threat. There are many security threats that must also be protected. A good security program will recognize vulnerabilities and provide countermeasures.

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11. FDA Website 2004 - www.cfsan.fda.gov/~furls/ovffreg.html
12. General Accounting Office Website 2004 – www.gao.gov “Prior Notice of Imported Food Under the Bioterrorism Preparedness and Response Act of 2002” (RIN: 0910-AC41)

Appendix 1

Formulas:

| | | |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Midlevel Manager 60k (1) | $(60,000/40)/52 = 28.85 \times 1.5$ (benefit factor) = cost p/hr | \$43.28 |
| Supervisor 43K (2) | $(43,000/40)/52 = 20.67 \times 1.5 =$ cost p/hr | \$31.01 |
| Facility Manager 72k (2) | $(72,000/40)/52 = 34.62 \times 1.5 =$ cost p/hr | \$51.93 |
| Administrative Assistant | 11.33 X 1.5 = cost p/hr | \$17.00 |
| Vice President 100k (2) | $(100,000/40)/52 = 48.08 \times 1.5 =$ cost p/hr | \$72.12 |
| Director (2) | $(70,000/40)/52 = 33.65 \times 1.5 =$ cost p/hr | \$50.48 |
| Legal Consultant | 300 p/hr | |
| Security Consultant | 1,500 per day + expenses | |
| Policy Meeting | $(4 \times 31.01) + 43.28 = (167.32 \times 16\text{hrs}) = \$2,677$ x 4 Policies = Cost per meeting | \$10,708 |
| Door Checks | $((31.01 \times 0.5) \times 3) \times 365 = \$16,977.98 \times 16 =$ \$271,647 (24/7 operation) $((((31.01 \times 0.5))) \times 2)) \times 5) \times 52 = 8,062 \times 2 =$ \$24,188 (16/5 operation) $((((31.01 \times 0.5)) \times 5) \times 52 = \$4,031 \times 25 =$ \$92,720 (8/5 operation) | 388,555 |
| FDA Information Gathering | $51.93 \times 42 =$ cost | \$2,181 |
| FDA Facility registration | $(43.28/0.5\text{hr}) \times 42 =$ cost | \$909 |
| FDA Prior notification public outreach program | $(43.28 \times 12) + \$249.64$ expenses to Kansas City, MO = cost | \$769 |

| | | |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Registration verification | $((20 \times 3) + 10 = 70) \times \$17 = \text{cost}$ | \$1,190 |
| Quality Meeting | $(33 \times \$43.28 \times 4) + (72.12 \times 4) + (300 \times 4) = \text{cost}$ | \$7,201 |
| 45 min facility registration meeting | $(50.48 + 43.28 + 72.12) \times 0.75 = \text{cost}$ | \$124 |
| FDA Bioterrorism Minneapolis, MN May 6-7, 2003 | $(43.28 \times 16) + \$540.52 \text{ expenses (Mileage, hotel, food, telephone)} = \text{cost}$ | \$1,233 |
| C-TPAT Training San Francisco | $(43.28 \times 3 \times 12) + \$3,749 \text{ expenses, mileage, airfare, hotel, car rental for one, telephone, food} = \text{cost}$ | \$5,307 |
| C-TPAT Satellite Conference | $(43.28 \times 8) + \$76.76 \text{ expenses to Chicago} = \text{cost}$ | \$423 |
| Customs Questionnaire | $43.28 \times 8 \times 3 = \text{cost}$ | \$1,039 |
| Customs Visit | $\$43.28 \times 8 \times 4 = \text{cost}$ | \$1,385 |
| Capital Costs | $\$222,200 / 42 \text{ facilities} = \text{average cost per year}$ | \$5,290 |
| Linear foot Warehouse H | $\$15,900 / 890 \text{ Linear feet} = \text{cost per/ft}$ | \$17.87 |
| Answer Security Questionnaires | $43.28 \times 42 = \text{cost}$ | \$1,817.76 |
| Security Policy Review | $\$31.01 \times 12 = \$372.12 \times 42 \text{ facilities} = \text{cost}$ | \$15,629.04 |
| Security 101 Training | Supervisor $\$31.01 \times 16 \text{hrs} \times 42 \text{ supervisors} =$ | \$20,839 |
| | VP $\$72.12 \times 16 \times 2 =$ | \$2,308 |
| | Director $\$50.48 \times 16 =$ | \$808 |
| | Mid-level manager $\$43.28 \times 16 \times 5 =$ | \$3,462 |
| | Airline costs $23 \times \$500 =$ | \$11,500 |
| | Mileage $\$0.345 \times 300 \times 29 =$ | \$3,002 |
| | Meals $\$35 \text{ p/day} \times 52 \times 2 =$ | \$3,640 |
| | Hotel $\$100 \text{ p/day} \times 52 =$ | \$5,200 |
| | Security Consultant = | \$10,500 |
| | Consultant expenses = | \$2,300 |
| | <u>Total for Security 101 Training =</u> | \$63,559 |
| Security Self Audit Training | <u>Security Consultant to conduct 5 Day training –</u> 5 days $\times \$1,500 =$ \$7,500 + 2 days preparation = \$3,000 + Expenses room $5 \times \$100 =$ \$500 + Airfare = \$600 + Meals $5 \times \$35 =$ \$175 | \$11,775 |

| | | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| | 10 Mid-level managers $\$43.28 \times 40 \times 10 =$ $\\$17,312$ + Rooms $5 \times \$100 = \$500 \times 10 =$ $\\$5,000$ + Meals $5 \times \$35 = \$175 \times 10 =$ $\\$1,750$ + Travel 2 airfare @ $\$500 =$ $\\$1,000$ + Mileage $8 @ 200 \times \$0.345 =$ $\\$552$ | \$25,614 |
| <u>Cost of 41 Security Audits</u> | 1 Mid-level manager 40 hours $\times 43.28 =$ $\$1,731$ $\$1,731 \times 41$ audits = $\\$70,971$ Hotel 5 days $\times 100 =$ $\$500$ $\$500 \times 41$ audits = $\\$20,500$ Meals $5 \times \$35 =$ $\$175$ $\$175 \times 41$ Audits = $\\$7,175$ | \$98,646 |
| | <u>Travel</u> – Airfare 5 trips to 10 plants $\times \$500 =$ $\\$2,500$ + Car rental $\$250$ per week $\times 10$ weeks = $\\$2,500$ + Mileage average 200 miles roundtrip per facility 200×32 facilities $\times \$0.345$ per/mile = $\\$2,208$ | \$7,208 |
| | Total cost for In-House Security Audits = | \$143,251 |
| Security Consultant Audits | $\$1,500$ per day $\times 5$ days per audit = $\$7,500$ $\$7,500 \times 41$ facilities = $\$307,500$ + Expenses Travel, meals, hotel (Cost for security audit) | \$307,500 |
| Future Planning | $(2 \times 82.12) + (2 \times 50.48) + (4 \times 42.28) +$ $(2 \times 42.28) =$ $\\$518.88$ Consultant = $3.5 \times \$1,500 =$ $\\$5,250$ + $\\$518.88 =$ Cost of the planning meeting | \$5,769 |

1 – Safety & Health Magazine Nov 2003, East North Central Salary Range

2 – <http://careers.msm.com>

**NYS Department of Health/NYS Department of Agriculture & Markets
Food Security Survey**

Information provided on this survey form will be received and accepted as confidential pursuant to Agriculture and Markets Law Section 23. Please complete all sections which are applicable to your food handling establishment.

Facility Information

| | |
|----------------------------------------|-------------|
| Name: _____ | Date: _____ |
| Street: _____ | |
| City/Zip: _____ | |
| Telephone # (include area code): _____ | |
| Fax # (include area code): _____ | |
| Email Address: _____ | |

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. Name & title of person completing survey: _____ | |
| 2. Nature of facility: (Check all that apply) <input type="checkbox"/> food processor <input type="checkbox"/> warehouse <input type="checkbox"/> packer/re-packer | |
| 3. Facility size: <input type="checkbox"/> <5,000 sq. ft. <input type="checkbox"/> 5 – 10,000 sq. ft. <input type="checkbox"/> 10 – 25,000 sq. ft. <input type="checkbox"/> 25 – 50,000 sq. ft. <input type="checkbox"/> 50 – 100,000 sq. ft. <input type="checkbox"/> >100,000 sq. ft. | |
| 4. Gross annual food sales: <input type="checkbox"/> <\$100,000 <input type="checkbox"/> \$100,000-\$500,000 <input type="checkbox"/> \$500,000-\$1,000,000 <input type="checkbox"/> >\$1,000,000 | |
| 5. Water supply: <input type="checkbox"/> municipal <input type="checkbox"/> well <input type="checkbox"/> other | |
| 6. Number of employees: <input type="checkbox"/> fewer than 10 <input type="checkbox"/> 10-50 <input type="checkbox"/> 51-100 <input type="checkbox"/> 100-200 <input type="checkbox"/> more than 200 | |

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 7. In general who receives food products directly from your facility (i.e.: retail stores, wholesalers, processing plants, individual consumers, etc.)? | _____ |
| | _____ |
| | _____ |

Food Processor/Warehouse/Packer-Re packer

If a question is not applicable to your facility, please enter N.A. or provide an explanation under "Comments."

| | Yes | No | Comments |
|---------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 8. Does your facility handle exposed foods? | | | |
| 9. Does your facility handle potentially hazardous foods (foods capable of supporting the growth of pathogenic microorganisms)? | | | |

Security Procedures

| | Yes | No | Comments |
|--------------------------------------------------------------------------------------------|-----|----|----------|
| 10. Has your facility been evaluated for food security? | | | |
| 11. Does the facility have a food security plan? | | | |
| 12. Has a food security plan been implemented at your facility? | | | |
| 13. Has a qualified individual(s) been assigned responsibility for establishment security? | | | |
| 14. Is mailroom secure and are incoming mail and packages screened? | | | |

Physical Plant

| | Yes | No | Comments |
|------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 15. Is outside perimeter secured, i.e. check posts, fences, card entry, visitor ID, etc.? | | | |
| 16. Is access to food handling and storage areas restricted? | | | |
| 17. Are access points into main facility and/or free-standing food storage buildings, warehouses, etc. secured at all times? | | | |
| 18. Is there adequate interior, exterior and emergency lighting? | | | |
| 19. Is there an alarm system? | | | |

| | Yes | No | Comments |
|--------------------------------------------------------------------------------|-----|----|----------|
| 20. Is access to laboratory and laboratory materials restricted and monitored? | | | |
| 21. Are hazardous chemicals held in a secure location and monitored? | | | |

Employees

| | Yes | No | Comments |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 22. Are new employees' work references, addresses, phone numbers, immigration status and criminal background checks reviewed and verified? | | | |
| 23. Is a positive identification and recognition system utilized for employees? | | | |
| 24. Is employee access restricted to those areas in the facility necessary for their job functions? | | | |
| 25. Are employee personal items restricted to non-food handling areas? | | | |
| 26. Has food security training been provided to employees? | | | |
| 27. Are you on the alert for unusual employee behavior, i.e. workers staying after shift, arriving unusually early, accessing information outside their area of responsibility, etc.? | | | |

Computer Systems

| | Yes | No | Comments |
|---------------------------------------------------------------------------------------------------------|-----|----|----------|
| 28. Is access to computer process controls and critical data restricted to those with proper clearance? | | | |
| 29. Are computer transactions traceable? | | | |
| 30. Is there a backup system for critical computer-based data systems? | | | |

Raw Materials & Packaging

| | Yes | No | Comments |
|------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 31. Does the facility use only approved sources for all ingredients, compressed gas, packaging and labels? | | | |
| 32. Are any of the items listed in questions #31 imported? | | | |

| | Yes | No | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 33. Does the firm request locked and sealed vehicles/containers and railcars? | | | |
| 34. Before off-loading or receipt, does the firm match all incoming paperwork with shipments? | | | |
| 35. Does the firm inspect incoming ingredients, compressed gas, packaging, labels and product returns for signs of tampering (e.g., abnormal powders, liquids or odors) or counterfeiting (inappropriate product identity, labeling, product log coding or specifications)? | | | |
| 36. Does the firm have quarantine and release procedures in place? | | | |
| 37. Does the firm perform security inspections of all storage facilities, including temporary storage vehicles regularly? | | | |

Operations

| | Yes | No | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 38. Is water supply security maintained, e.g., wells, hydrants, storage and handling facilities via testing, backflow prevention, etc.? | | | |
| 39. Is plant air security maintained by controlling access to air intake points (e.g., fences, sensors, guards, video surveillance)? | | | |

Finished Products

| | Yes | No | Comments |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| 40. Is there a procedure in place to keep track of finished products? | | | |
| 41. Is public storage warehousing and shipping utilized by firm practicing appropriate security measures per contractual agreements or letters of guarantee? | | | |
| 42. Are random inspections of storage facilities, vehicles and vessels performed? | | | |
| 43. Are locked and sealed vehicles utilized with seal numbers provided to consignee? | | | |

Security Strategies

| | Yes | No | Comments |
|-------------------------------------------------------------------------------------------|-----|----|----------|
| 44. Does firm have a plan in place to deal with a tampering, criminal or terrorist event? | | | |
| 45. Has firm identified local, state and federal agency contacts? | | | |
| 46. Does the firm have a recall strategy in place? | | | |

The events of September 11, 2001 and the subsequent anthrax bio terrorism episode reinforced the need to focus on the possible use of our nation's food supply as a vehicle for terrorist activity. This survey is part of a joint Federal/State effort to assess that threat. As a follow up to this risk assessment and vulnerability survey, the New York State Departments of Agriculture and Markets and Health intend to develop a risk management strategy designed to assist New York food handling establishments in addressing their individual food security needs. In your view, what kinds of assistance would be most useful to your operation?

Would you want a representative of the New York State Department of Agriculture and Markets to assist you in performing a complete food security vulnerability assessment of your establishment? ___Yes___No

Joseph E. Kernan
Governor

Gregory A. Wilson, M.D.
State Health Commissioner



Indiana State Department of Health

An Equal Opportunity Employer

January 2004

To: Food Processors, Distributors and Manufacturers:

The events of September 11, 2001, and the subsequent anthrax bioterrorism incidents have made us all aware of the risks posed by terrorists. The United States National Infrastructure Protection Center has identified food as one of our eight critical infrastructures to guard against terrorist attacks. An attack on our food supply is now a very realistic threat. Our focus must be to minimize the risk of an attack and be prepared to respond.

In February of 2002, the Indiana State Department of Health (ISDH) entered into a public health preparedness and response to bioterrorism cooperative agreement with the Centers for Disease Control and Prevention. As part of this agreement, the ISDH is to ensure the performance of risk and vulnerability assessments of food to include assessments of production, processing and/or distribution facilities. The enclosed survey is the beginning of this process.

The status of food security in Indiana is currently unknown. This is the first step in fostering a partnership between the public and private sectors to assess this situation and ensure that the food chain in Indiana is safe and secure for all consumers.

These surveys are confidential documents protected under law and are not subject to public disclosure under IC 5-14-3-4(19). The results of a survey will be used to facilitate an on-going discussion between the ISDH and industry to address food security issues. There are two new food security specialists working in the food protection program at the ISDH and they will be assisting you with any issues regarding food security and bioterrorism.

Please take the time to fill out this survey and return it to us by February 2, 2004. We look forward to assisting you in future food security/bioterrorism preparedness efforts. If you have any question, please feel free to contact Travis Goodman at 317/233-7360.

Sincerely,

GREGORY A. WILSON, M.D.
STATE HEALTH COMMISSIONER

Enclosure



Food and Drug Administration
Detroit District Office
Central Region
300 River Place, Suite 5900
Detroit, MI 48207
Telephone: (313) 393-8100
FAX: (313) 393-8139

Dear Indiana Food Facility:

The Bioterrorism Preparedness and Response Act, a new federal law, went into effect on December 12, 2003 and directed the U.S. Food and Drug Administration to take certain steps to protect the U.S. food supply.

What does this mean for you?

- **Almost all food establishments that manufacture, process, pack, or hold food for consumption in the U.S. must register their firm with FDA.**

What happens if I don't follow these new requirements?

- **For firms that are required to register, failing to do so is a prohibited act under the Federal, Food, Drug, & Cosmetic Act. However, for the four months following the effective date of December 12, 2003 the FDA plans to focus on education and training to assist facilities that are required to register under this rule. FDA will use discretion in enforcing the regulation.**

You can register your firm with FDA on-line at <http://www.access.fda.gov>. FDA encourages you to register on-line using the internet. It is a simple and secure process with no fees. You may also request a paper registration form if you prefer.

Please refer to the enclosed FDA booklet entitled, *What You Need to Know About Registration of Food Facilities*, for complete instructions.

The Food and Drug Administration works cooperatively with the Indiana State Department of Health (ISDH) on matters involving food safety and security. FDA encourages your cooperation in completing the ISDH Food Security Survey which is the primary reason for this mailing.

**INDIANA STATE DEPARTMENT OF HEALTH
FOOD PROTECTION PROGRAM
FOOD SECURITY SURVEY**

FACILITY INFORMATION

Please circle or write in the appropriate response

| |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Facility Type: Production, Processing, Distribution, Repackaging, Other |
| Number of Employees: Fewer Than 10, 11-50, 51-200, 201-500, More Than 500 |
| Facility Size: Less Than 5,000 sq. ft., 5,001 - 50,000 sq. ft., Greater Than 50,000 sq. ft. |
| Water Supply: Municipal (City) Water, Private Water Well, Other |
| Wastewater Disposal: Municipal, Private Wastewater System |
| Type of Foods: Grains and Baking, Dairy, Eggs, Fish, Meats, Fruit, Nut and Vegetable, Dressings and Spices, Beverages, Confections and Desserts, Multiple Foods, Soups, Salads, Baby Food and Dietary Foods, Additives and Food Storage, Beer and Wine, Other |
| Number of food ingredient suppliers? 1, 2-5, 6-10, 11 or more |
| Products from your facility are provided to: Retail Stores, Wholesalers, Processing Plants, Direct to Consumers, Specific Contracted Population, Other |

FOOD SECURITY- PREVENTION MEASURES ASSESSMENT

Please check the appropriate response- Yes, No, NA-(Not Applicable to Your Facility)

MANAGEMENT:

| | Yes | No | NA |
|-------------------------------------------------------------------------------------------------------------|-----|----|----|
| 1. Is there a person or management team in charge of food security at the facility? | | | |
| 2. Is food security training provided to employees? | | | |
| 3. Are there any incentives for employees to report food product tampering or any other unusual situations? | | | |
| 4. Are there any access restrictions to areas where food is produced, processed, stored or distributed? | | | |

Recall strategy

| | | | |
|---------------------------------------------------------------------------------------------|-----|----|----|
| 18. Is there a person who is responsible for recalls and a back-up if they are unavailable? | Yes | No | NA |
| 19. Are there procedures in place for proper disposition of recalled products? | | | |
| 20. Is there an accurate list of current customer contacts, addresses and phone numbers? | | | |

Investigation of suspicious activity

| | | | |
|----------------------------------------------------------------------------------------------|-----|----|----|
| 21. Is there a procedure in place for investigating suspicious activities? | Yes | No | NA |
| 22. Are all threats and suspicious behavior reported to the proper authorities? | | | |
| 23. Is law enforcement alerted about suspicious activities or suspected criminal activities? | | | |

Evaluation program

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 24. Is there someone in charge of evaluating the lessons learned from past tampering or terrorist events? | Yes | No | NA |
| 25. Does someone review and test the effectiveness of strategies (e.g., conducting mock criminal, terrorist or tampering event and mock recall, challenging computer security systems, etc.) and revise them accordingly? | | | |
| 26. Does someone perform routine and random food security inspections of the facilities? (including; receiving and warehousing areas and intrusion detection systems) | | | |
| 27. If third party security contractors are used does someone evaluate their work to verify they are doing an adequate job? | | | |

Personal items

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 36. Are employee personal items restricted to non-food handling areas? | Yes | No | NA |
| 37. Is there any regular or random inspection of the contents of staff lockers, bags, packages, and vehicles when on facility property? (Remember to consult any federal, state, or local laws that may relate to such inspections) | | | |

Training in food security procedures

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 38. Do employees know who they should alert about potential security problems and where they can be reached? | Yes | No | NA |
| 39. Is food security training provided to all new employee's, including information on how to prevent, detect, and respond to tampering, criminal or terrorist activity? | | | |

Unusual behavior

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 40. Is management alert for unusual employee behavior, i.e. workers staying after shift, arriving unusually early, accessing areas outside their responsibility etc.? | Yes | No | NA |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|

Staff health

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 41. Is management alert to atypical health conditions that employees may voluntarily report and absences that could be an early indicator of tampering or other malicious criminal or terrorist actions? | Yes | No | NA |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 54. Is perimeter access protected with fencing or another type of deterrent? | Yes | No | NA |
| 55. Are there "no trespassing" signs posted on the facility property? | | | |
| 56. Does the facility have a security alarm system? | | | |
| 57. Is there video surveillance at the facility? | | | |
| 58. Are areas inside and around the facility well lighted? | | | |
| 59. Do emergency exits have self-locking doors that can only be opened from the inside? | | | |
| 60. Are incoming and outgoing vehicles (both private and commercial) inspected for unusual cargo or activities? | | | |
| 61. Are supply deliveries verified against a roster of scheduled deliveries? | | | |
| 62. Are unscheduled deliveries held up (outside plant premises if possible) pending verification of shipper and cargo? | | | |
| 63. Have potential hiding places, where an intentional contaminant could be placed, temporarily before being used, been eliminated? | | | |
| 64. Are maintenance closets, personal lockers, toilets and other storage areas checked regularly for packages and other anomalies? | | | |
| 65. Are all outside access points locked and secured when facility is closed? | | | |

Laboratory safety

| | | | |
|--------------------------------------------------------------------------------|-----|----|----|
| 66. Is there restricted access to the laboratory? | Yes | No | NA |
| 67. Are the laboratory materials restricted? | | | |
| 68. Is there a tracking mechanism in place for hazardous laboratory chemicals? | | | |

Storage:

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 81. Is there a system for receiving, storing, and handling, distressed, damaged, returned, and rework products that minimizes their potential for being compromised or to compromise the security of other products? | Yes | No | NA |
| 82. Is there an investigation conducted when there is missing or extra stock or other irregularities outside a pre-determined normal range of variability and reported to local law enforcement when appropriate? | | | |
| 83. Are labels kept in a secure location to prevent theft or misuse? | | | |

Security of water and utilities

| | | | |
|--------------------------------------------------------------------------------------------------------------|-----|----|----|
| 84. Have access points to airflow, water, electricity, and refrigeration been minimized as much as possible? | Yes | No | NA |
| 85. Are water wells, hydrants, and water storage and handling facilities secured? | | | |
| 86. Are the water systems regularly, as well as randomly, inspected and the water tested for potability? | | | |
| 87. Is the water system chlorinated and is the chlorination equipment being monitored? | | | |
| 88. Is contact maintained with the public water provider to be alerted to problems? | | | |
| 89. Have alternative sources of water been identified? | | | |

Computer Systems

| | Yes | No | NA |
|------------------------------------------------------------------------------------------|-----|----|----|
| 100. Is access restricted to computer process control systems and critical data systems? | | | |
| 101. Is there a way to trace computer system transactions? | | | |
| 102. Is there a method for validating the computer security system? | | | |

EVACUATION AND RESPONSE:

| | Yes | No | NA |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|
| 103. Has anyone developed a list of things to do if evacuation is necessary? (e.g., removing Tier II-hazardous materials information, employee reassembly points, maintaining off-site pictures/videos of property and equipment for damage claims, off-site critical computer, telephone, and other records) | | | |
| 104. Is there a strategy for triaging in the event of a terrorist attack or other criminal activity? | | | |
| 105. Is there a plan in place for emergency evacuation, including preventing security breaches during evacuation? | | | |
| 106. Has a media spokesperson been established? | | | |
| 107. Is there some designated place to operate your business from a remote site? | | | |
| 108. Is there a plan for keeping your employees informed while the business is shut-down? | | | |
| 109. Are there dump sites available for any contaminated products? | | | |
| 110. Have procedures been established with community emergency personnel to assure proper access to the facility during an emergency while still preventing public access? | | | |
| 111. Have the nearest medical treatment facilities been identified and contacted regarding what type of treatment they can provide and what type of capacity they can handle? | | | |

SYSKO / AIB / POPEYES
FOOD SECURITY PREPAREDNESS EVALUATION CHECKLIST

| | | Yes | No | N/A |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|
| 1 | Are the entire perimeter grounds secured by fence and all unlocked gates monitored? (1 point) | | | |
| 2 | Are all entrances to the facility locked and/or have secured access (i.e., key cards, security codes, guards at unlocked entrances, ets.)? (1 point) | | | |
| 3 | Are visitors and contractors required to report to a main entrance upon arrival? (1 point) | | | |
| 4 | Do all visitors and contractors sign in at a guest book or other log? (1 point) | | | |
| | ** Auditor Guidance: If guests are present during the audit, the guest or other log book should be reviewed to determine if they have signed in. If guest(s) have not signed in, answer the question as "no" and explain. | | | |
| 5 | Do employees change into company uniforms at the facility? (1 point) | | | |
| | ** Auditor Guidance: Answer "no" if uniforms are worn from home to the facility. | | | |
| 6 | Are visitors, contractors, and other guests required to wear an outer garment over street clothes, such as a smock, or change into a uniform prior to entering the warehouse or manufacturing areas? (1 point) | | | |
| 7 | Do <u>all</u> employees wear visible photo identification badges in the facility? (1 point) | | | |
| 8 | Do all visitors and contractors wear visible guest passes or badges? (1 point) | | | |
| 9 | Is an in-house or contracted security service employed and present at the facility? (1 point) | | | |
| 10 | Are security cameras present to view various locations of the exterior grounds? (1 point) | | | |
| 11 | Are security cameras present in the facility at key internal processing hubs? (1 point) | | | |
| 12 | Do all outside bulk receiving lines have locks or tamper-evident seals? (4 points) | | | |
| | ** Auditor Guidance: This must include all bulk liquids, bulk dry goods, and bulk chemical line hook-ups. Check N/A if no bulk receiving hook-ups are utilized outside the facility. | | | |
| 13 | Are <u>all</u> incoming goods trailers sealed, seals checked, seal numbers verified to original bill of lading or other document, and checking the seals documented? This should also include empty bulk liquid or bulk dry goods trailers arriving at the facility that are to be loaded. (3 points) | | | |
| 14 | Are all outbound goods trailers sealed and seal numbers documented after loading? (3 points) | | | |
| 15 | Are work reference and/or random criminal and drug background checks conducted on all employees? (3 points) | | | |
| 16 | Has the facility conducted and documented an Operational Risk Management (ORM) or other similar risk assessment for food security at facility? (4 point) | | | |
| 17 | Is a documented product recall plan and crisis management team established at the facility? (4 points) | | | |
| 18 | Has a mock recall been conducted by the crisis management team within the last six months? (2 points) | | | |
| 19 | Is a documented list available with names and numbers of primary and secondary contacts of key regulatory agencies to contact in the event of a recall or food security issue? (2 points) | | | |
| 20 | Is the water source from a municipal supply, and/or are all wells secured to limit unauthorized access? (4 points) | | | |

Score: 40 possible points
 Passing Score: 32 points - 80%