

**Security Executive Council  
Member Thought Leadership**

from

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## **A UNIFIED VIEW OF FOOD DEFENSE**

\* Member Thought Leadership papers give SEC members an opportunity to express their expertise on a given topic. They do not necessarily reflect the opinions of the Security Executive Council.

## **Introduction**

Consumers in the developed world have come to trust the safety of their food. Many have little concept of the conditions under which their food was grown, processed, stored or transported. Consumers trust that whether they obtain their food from a market, restaurant or food outlet, their meal will be safe to eat. Outbreaks of illness caused by contaminants in the food supply, such as E. coli or salmonella are unsettling to the confidence and trust that the public has in those who are responsible for a safe food supply. When the root causes of such illnesses prove to be difficult to locate, that confidence and trust is shaken even further.

Those who have been in the food industry since before 2001 have seen many changes: changes in the way we protect our products and assets, and changes in the expectations of the regulatory and other governmental agencies concerning that protection. Prior to 2001 food companies generally assigned responsibility for product integrity to those persons or departments charged with food safety issues. A company's physical security plan, if it existed, would primarily be concerned with protection of its people and assets. While a physical security plan would most likely provide some added protection to the integrity of the product, in the form of food security, this protection was simply an added benefit rather than a designed function of the security plan itself. During this time, food companies gave little consideration to using both food safety and food security (physical security techniques) to protect the integrity of food products.

The purpose of this paper is to explore a unified view of Food Defense, provide a more accurate definition of "Food Defense" and outline a cross-functional approach for food companies to use in developing their Food Defense plans. This will provide a strategy for lowering the identified enterprise risk for a business, while optimizing the available resources and minimizing redundancy.

## **The Start of Change**

In late 2001 and early 2002 the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) began to recognize the differences between food safety and food security. The FDA issued their first publication of Food Security Guidelines in January 2002. In April 2002, the USDA, through the Food Safety Inspection Service (FSIS), began issuing security guidelines for the segments of the food industry regulated by them. The US Coast Guard issued regulations (33 CFR 105) which affected food facilities located at ports and inland waterways and US Customs developed the Customs Trade Partnership Against Terrorism (C-TPAT) voluntary program. The Department of Homeland Security (DHS) was formed and quickly named a list of Critical Infrastructures, wisely naming the food and agriculture combined industries as one of them. Presidential Directives 5, 7, 8 and 9 defining the food industry's role in National Security followed. Many of the larger food companies began asking their suppliers questions about their security and the manner in which they protected their products. Clearly the government and all its regulatory agencies were beginning to focus on the issues of Food Security and Food Safety as national issues.

## **Status of Food Security**

Although the differences between the disciplines of food safety and food security were starting to be recognized, unfortunately, there were too few professional security practitioners in the food industry to provide the level of competent security advice that many small, medium and large companies required. Many companies hired consultants. There were many fine security consultant firms already in place, and many more hung out shingles, but few had background or experience in the area of food security. As a consequence, proper physical security measures in

the food industry were being defined in many of the same ways as they were in chemical plants or nuclear facilities. Stand-alone high cost items; such as: perimeter fencing, camera and access control systems, were being suggested even though they might provide little actual value to the security of the facility and would siphon scarce resources from a competent overall security plan. Although the food and agricultural industries struggled through this time of mixed messages and undefined expectations, most companies were able to put together competent food security plans to go along with their food safety plans.

To their credit, a number of governmental agencies began to reach out to the food industry for advice on how to best protect the food supply and the food industry. The FDA, USDA-FSIS, DHS, FBI and numerous other federal, state and local regulatory and law enforcement agencies have communicated with the food industry in many ways. Focus groups, committees, seminars, and organizational development have been effective in providing meaningful dialogs about the issues. Operational Risk Management (ORM) and CARVER+S assessment tools were developed and in many cases, adopted by the industry. The CARVER+S model continues to be refined for use by the food industry.

### **Development of the Food Defense Concept**

Since September 11, 2001, the disciplines of food safety and food security led the way for defending product integrity as companies developed plans to protect their products, their brands and the food supply of the country. In early 2005, however, the term "Food Defense" first appeared in conversations with governmental and regulatory agencies. It was not immediately apparent to the food industry that this new term would mark a change in how companies would be expected to protect their products in the future.

In a March 29, 2006 broadcast to food safety and Food Defense professionals, titled "Food Defense Awareness" and co-sponsored by the FDA and Centers for Disease Control and Prevention (CDC), Dr. David Acheson (FDA) gave a brief history on the term stating that it came about because of confusion caused by the term "Food Security". In many countries, that term meant "an adequate food supply" or "do we have enough food?" and didn't necessarily reflect on the security of the food products. Thus, the less ambiguous term of "Food Defense" was coined. The Food and Drug Administration's Food Defense Terms and Acronym List defines "Food Defense" as follows:

"The collective term used by the FDA, USDA, DHS, etc. to encompass activities associated with protecting the nation's food supply from deliberate or intentional acts of contamination or tampering. This term encompasses other similar verbiage (i.e., bioterrorism (BT), counter-terrorism (CT), etc.)". The USDA website defers to the FDA definition.

Since September 2006, FSIS Directive: Homeland Security Threat Response-Food Defense Verification Procedure has outlined a Food Defense inspection procedure for inspection personnel in the meat poultry and egg products establishments. The purpose of this procedure is to identify and mitigate, to the maximum extent possible, potential vulnerabilities in the security of an establishment that could lead to deliberate contamination. The procedure describes various inspection activities for water systems, processing/manufacturing, storage areas and shipping and receiving. Homeland Security's threat levels: yellow, orange and red trigger different levels of inspection.

### **An Expanded View of Food Defense**

Therein lies the issue. The current definition of "Food Defense" implies that planning be limited to protecting the food supply from terrorist activities or deliberate contamination. Why would companies not pull together all of the available resources in a company to protect the product, the brand and, collectively, the food supply of the United States regardless of the circumstances by which it is endangered? A "big umbrella" view of the issue would look at Food Defense in the

same way we address personnel safety in a company. Safety is something for which every single employee is responsible. Every department, every discipline and every person is accountable for providing a safe working environment. The penalties for non-compliance or non-involvement can be severe. The concept of Food Defense can, and should be, just as encompassing.

As companies assess their enterprise risks, the risks to the reputation of the brands and products should assume high priority. Using a Food Safety plan to identify and mitigate un-intentional product contamination risks and a Food Defense plan to do the same for intentional contamination will lead to redundancies in the plans. In addition, having separate Food Safety and Food Defense plans may not adequately address all of the risks of product contamination and, as a result, may create gaps in the protective shield. A more comprehensive plan would address all risks from the field to the fork.

There is certainly a precedent for taking a broader view. The March 2003 version of the FDA's Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance contains 112 bullet points that outline the types of issues the food industry might consider when developing measures to minimize risks to the food they produce. Realistically, implementation of all of these suggestions would require the cooperation of Security, Human Relations, Operations, Quality Assurance, Maintenance, Medical, Administration and Senior Management. The FSIS Security Guidelines for Food Processors, dated April 2002, would require that similar levels of cross-discipline agreements be put in place.

If we assume that we should coordinate all of our efforts to control the safety, security and integrity of our products, then we should accept the premise that this is what Food Defense should become. A new definition of Food Defense could be stated as:

“Activities associated with protecting food products and the nation's food supply from intentional or un-intentional contamination.”

### **Employing a Cross-Functional Effort**

Many food companies are taking significant steps to protect their products. But because those steps are not traditional security measures or techniques, they are probably not being labeled as Food Defense initiatives. Almost every department, function, or discipline within their company already has some role in Food Defense, even though they may not identify it as such, because their primary roles are not generally viewed in that way.

Looking at a typical food processing plant may reveal a number of different departments or disciplines that have an impact on the manner in which food products are protected. Here are a several examples:

**Quality Assurance** - Overseeing responsibility for food safety programs, quality testing, product recall plans and Federal Bioterrorism Act compliance.

**Security** - Designing and implementing physical security controls and the security plan for the facility. Conducting investigations and ensuring compliance with security rules and procedures.

**Human Resources** - Implementing hiring practices (background investigations, choosing temp agencies) and security work rules. Enforcing disciplinary actions for security breeches and responsibility for security training.

**Information Services** - Maintaining security for confidential business information, formulas, business plans, and other business secrets or proprietary information.

**Operations** - Maintaining physical security programs, security guards, and identifying, investigating and reporting on security breaches and alarms. Enforcing shipping and

receiving policies. Providing security for raw and finished materials storage. Maintaining control of contractors, including fumigation personnel and their chemicals. Maintaining plant security awareness. Supervision of temps, contractors and other employees.

**Sanitation** - Overseeing responsibility for cleaning and sanitizing equipment, often with little or low-level supervision.

**Medical** - Observing the general health of the workforce, benchmarking normal medical issues, reporting on suspicious illnesses, and coordinating information with local and national health agencies.

**Administration** - Controlling of visitors and contractors, operation of mailroom and postal/overnight deliveries.

**Plant Management** - Providing support, priorities, guidance, oversight and resources for all Food Defense initiatives. Coordinating outreach to local, state, and federal regulatory and law enforcement agencies.

### **Taking the First Steps Toward a Food Defense Plan**

How might a company move forward to coordinate its activities under a Food Defense umbrella? A suggested first step would be to form a committee consisting of representatives of all departments, functions or disciplines that have been identified as part of the company's Food Defense plan. The committee should first inventory existing processes to determine their applications to Food Defense; specifically, review the process flow in the company's production and look at existing controls that can be adopted. Then the committee should work together to determine what might be improved. By specifically identifying these existing processes, it gives them more exposure and allows for oversight under the Food Defense plan. Charting this flow, with the existing key controls already outlined and adopted, has the attribute of naturally aligning functions for a common goal and encouraging ownership of the Food Defense plan. During this phase, the use of risk analysis studies and tools such as CARVER+S would be appropriate to help identify these issues. The committee would then recommend best Food Defense practices to each of the departments, functions or disciplines so that much of the Food Defense response could be standardized throughout the company, regardless of how large or small that company may be.

### **Developing a Food Defense Strategy for the Food Defense Plan**

A company's Food Defense strategy should leverage the strengths provided by cross-functional participation to develop and implement a Food Defense plan that is supported at the highest level of the organization. A strategy that crosses many of the existing lines between functions, however, can pose formidable challenges for any company. Success will require both leadership and commitment at a high level within the organization. The Food Defense strategy, and the ensuing Food Defense plan, should reflect what a company truly believes is needed to defend their products from any conceivable threat. Once the plan is in place, it must be practiced and audited on a regular basis to remain viable. As the company, and the people in it change, the training of new people and recognition of their roles in the Food Defense plan must remain at a consistently high level. In addition, the plan itself must be fluid enough to be easily updated in response to any new threat.

### **Summary**

In summary, Food Defense is a much bigger issue for a company than simply "protecting the food supply from deliberate or intentional acts of contamination". It is a compilation of all the efforts needed to protect the products, and therefore the business, from anything or anyone who would harm them. To accomplish this, three goals must be met:

- (1) Define the term “Food Defense” more broadly to include both intentional and unintentional contamination.
- (2) Identify the existing functional capabilities that should be included in a company’s cross-functional Food Defense plan, and then determine the additional efforts needed.
- (3) Implement a Food Defense plan that not only uses a cross-functional strategy, but is established as a priority program, with the highest levels of executive support, throughout the company.
- (4) Review and audit the program on a regular basis to ensure compliance.

A broader view of Food Defense provides an opportunity to expand the definition and methodology of how food companies protect their products. As food companies continue to identify the enterprise risks associated with their business, certainly, the protection of the products, the brands and the good name of the company should assume a high priority. Changing the ways in which we define and plan for Food Defense can give the industry a vision to follow while providing those protections.

## **ABOUT THE SECURITY EXECUTIVE COUNCIL**

The Security Executive Council ([www.securityexecutivecouncil.com](http://www.securityexecutivecouncil.com)) is a member organization for senior security and risk executives from corporations and government agencies responsible for corporate and/or IT security programs. In partnership with its research arm, the Security Leadership Research Institute, the Council is dedicated to developing tools that help lower the cost of members' programs, making program development more efficient and establishing security as a recognized value center.