

# FOOD DEFENSE PLAN

## INTRODUCTION

All food processing facilities need to address food defense. The first step is to develop a functional food defense plan that assesses the existing security measures and risk reduction programs already in place to reduce the likelihood that a terrorist could adulterate or contaminate the finished product through contamination of raw materials, in-process formulations or finished products at the end of the production process.

Although it may not appear that a small or very small establishment would be a target for a terrorist activity, all establishments need to go through the exercise of assessing where they may be vulnerable to terrorist activity and how they might reduce any risk that exist. In the development of the food defense plan, the establishment will look at where the vulnerabilities may arise. These may be from the outside through the incoming raw materials, through unauthorized entry or through the water supply, or they may be through internal means such as employees that have access to raw materials and ingredients, in-process formulations or even finished products.

Forming a food defense team is a good place to start. Depending on the size and structure of an establishment's organization, team members may come from areas such as management, security, quality assurance, human resources, maintenance, engineering and even the FSIS inspectors.

After the establishment identifies potential vulnerabilities, it will then examine possible risk-reduction methods such as the use of physical security or hardware (e.g., closed circuit TV, alarms, doors, guards, access control systems), personnel security (e.g., background checks, colored hats, screening, training, awareness) or procedural security (e.g., key control, having two persons present when raw materials are accessed, testing).

Once the key vulnerabilities are addressed with risk-reduction methods, the establishment needs to ensure that the risk-reduction techniques are being used (e.g., doors are kept locked, visitors are not allowed into the plant without an escort). This verification should be documented, as well as periodic challenges to the system, and reviews of the plan. Templates for these activities are included in the following plan development model.





**ADDITIONAL BACKGROUND INFORMATION ON ESTABLISHMENT**

**Cleaning and Sanitation Chemicals**

Chemical <sup>(1)</sup>	Package type <sup>(2)</sup>	Storage <sup>(3)</sup>

<sup>(1)</sup> List your chemicals being as specific as possible.

<sup>(2)</sup> Package type should define how the chemical is received, e.g., 5,000-gallon bulk liquid, 55-gallon drum; 40-pound liquid pail, 40-pound powder in plastic bag

<sup>(3)</sup> Provide details on product storage, e.g., locked in cage, unlocked in storage room, locked in bulk-storage tank

**Cleaning & Sanitation Staff (check one)**

Internal \_\_\_\_\_ External (contracted) \_\_\_\_\_ Both internal & external \_\_\_\_\_

If you use an external company for cleaning & sanitation, how many years have you used this service? \_\_\_\_\_ How many persons on the crew? \_\_\_\_\_

**Controlling Access to the Establishment & Operations**

Question	Yes	No
<b>Do employees undergo background checks?</b>		
Do employees have identification badges for entry?		
Are non-employees always escorted in the establishment?		
Are truck drivers kept out of food storage & preparation areas?		
Are barriers (locked doors, fences) in place to prevent unauthorized entry into the grounds, building and operations areas?		
<b>Are limited-access areas secured?</b>		

ADDITIONAL BACKGROUND INFORMATION ON ESTABLISHMENT

Processing Steps & QA Checks

Step	Yes or No <sup>(1)</sup>	QA check <sup>(2)</sup>	No QA check
Raw material receiving			
Ingredient receiving			
Raw material storage			
Ingredient storage			
Pre-mixing ingredients			
Mixing, blending, tumbling raw materials & ingredients			
Grinding			
Handling of raw materials by people			
Handling of ingredients by people			
In-process holding, e.g., surge tank, hopper			
Product forming/shaping			
Product injection or tenderizing			
Partial cooking			
Full cooking (CCP)			
Freezing			
Packaging & boxing			
Frozen storage			
Refrigerated storage			

<sup>(1)</sup> Indicate whether or not your establishment has the processing step in any of your manufacturing processes. Add additional steps as needed.

<sup>(2)</sup> Capture the QA checks done at the specific processing step, if any, e.g., temperature reading, fat analysis, visual check for extraneous material; if no QA check is done, check column 4

## ANALYSIS OF BACKGROUND DATA FOR FOOD DEFENSE PLAN

After documenting the background information on employees, access to your facility and operations, raw materials and ingredients, finished products, chemicals and sanitation operations, and processing steps, you are now ready to answer some additional questions in developing your food defense plan.

What are those areas or procedures in your facility and operation that you believe are more vulnerable to possible attack by a terrorist (*i.e.*, critical nodes)?

Area	Reason for vulnerability	Critical Node Yes or No
Employees	Lack of identification	
	Uncontrolled access within plant	
	Unsupervised activities	
Non-employees	Lack of identification	
	Uncontrolled access within plant	
	Unsupervised activities	
Raw materials	Suppliers not part of select supplier program	
	Opportunity for unsupervised access during receiving or storage	
Ingredients	Suppliers not part of select supplier program	
	Opportunity for unsupervised access during receiving or storage	
Processing	Unsupervised access to raw materials during processing	
	Unsupervised access to ingredients during processing	
	Unsupervised access to open hoppers, tanks or other vessels during operations	
Chemicals & Sanitation	Unsupervised crew	
	Unsupervised access to raw materials, ingredients & finished products during cleaning operations	
	Unlocked storage of chemicals	
Other	Access to water supply	

## REDUCING RISKS AT CRITICAL NODES FOR THE FOOD DEFENSE PLAN

Now that you have identified some areas outside or inside your establishment, or procedures used in daily operations that are more vulnerable than others, you can think of ways to reduce the risk at that area or processing step. In order to do that, copy those critical nodes identified above into column 2 below and complete the table. You may not have vulnerabilities in all areas listed in the table (add additional rows if needed).

Area	Vulnerability	Possible means to reduce the vulnerability (countermeasures, mitigation strategies) <sup>(1)</sup>
Employees		
Non-employees		
Raw materials		
Ingredients		
Processing		
Chemicals & Sanitation		
Other		

<sup>(1)</sup> There currently is no list of countermeasures you may use; although industry task forces have addressed common vulnerabilities; and these may be obtained through trade associations for the meat and poultry industries. It is recommended that a team from the establishment evaluate the vulnerabilities identified and think of the best way in their operation to reduce the risk. This is important because each operation can be unique in terms of its physical design, number and types of employees, hours of operation, raw materials and ingredients used in the operation, et cetera.

## FUNCTIONAL FOOD DEFENSE PLAN

The Food Safety and Inspection Service has an expectation that each federally-inspected meat and poultry establishment will have a functional food defense plan. What you have just completed is a simplified vulnerability assessment and the beginning of work to implement countermeasures against those vulnerabilities where such a mitigation strategy is possible.

There are five key characteristics of a functional food defense plan:

Written: You are nearly complete as you answer the following questions and place this completed document in a folder, electronic file or notebook entitled Food Defense Plan.

\_\_\_\_\_ check here once the plan is written and filed

Implemented: This means you are doing those written procedures in your plan that help reduce the risk or vulnerability (e.g., checking name badges, wearing color-coded hats).

\_\_\_\_\_ check here if an Implementation Monitoring Schedule exists  
(see following pages for example Implementation Monitoring Schedule)

Tested: Testing your plan means that someone challenges (e.g., by moving around the plant without clearance) a component of the written plan to determine whether an employee challenges the activity based on their training and understanding of food defense.

\_\_\_\_\_ check here if an Test Schedule exists  
(see following pages for example Test Schedule)

Assessed: The assessment of the plan may be best accomplished by a third-party (from within or outside the company) expert that can help to determine if the plan is adequate.

\_\_\_\_\_ check here if a third-party has assessed the plan

Maintained: You need to review the plan at some frequency (e.g., quarterly) to ensure it covers the establishment's activities, signing off on the review to demonstrate the maintenance schedule for the plan.

\_\_\_\_\_ check here if a Maintenance Schedule exists  
(see following pages for example Maintenance Schedule)

## FOOD DEFENSE PLAN - IMPLEMENTATION MONITORING SCHEDULE

Date	Identification of Observed Risk-Reduction Procedure <sup>(1)</sup>	Acceptable (A) Needs Improvement (NI) <sup>(2)</sup>	Sign-off Signature

<sup>(1)</sup> Write in the activity that is observed, e.g., badge checking, personnel only in designated area, outdoor door secured

<sup>(2)</sup> Acceptable = activity was occurring according to the written plan; Needs Improvement = activity was not occurring according to the written plan – in this case, an action plan should be included to improve the risk-reduction activity (see below)

## NEEDS IMPROVEMENT ACTION PLAN - IMPLEMENTATION

Date	Observed Risk-Reduction Procedure Needing Improvement	Needs Improvement Plan <sup>(1)</sup>	Sign-off Signature

<sup>(1)</sup> Write in the planned activity to strengthen the risk-reduction activity that was observed to need improvement

## FOOD DEFENSE PLAN – TEST/CHALLENGE SCHEDULE

Date	Risk-Reduction Procedure or Method that is Challenged in the Test <sup>(1)</sup>	Acceptable (A) Needs Improvement (NI) <sup>(2)</sup>	Sign-off Signature

<sup>(1)</sup> Write in the procedure or method that is challenged, e.g., outside door, personnel in designated area only, secured ingredients or chemicals

<sup>(2)</sup> Acceptable = risk-reduction procedure or method that was physically challenged; Needs Improvement = procedure was not occurring as it should – in this case, an action plan should be included to improve the risk-reduction procedure or method (see below)

## NEEDS IMPROVEMENT ACTION PLAN – TEST/CHALLENGE

Date	Challenged Risk-Reduction Procedure Needing Improvement	Needs Improvement Plan <sup>(1)</sup>	Sign-off Signature

<sup>(1)</sup> Write in the planned activity to strengthen the risk-reduction activity that was challenged and found to need improvement

