

FoodIndustry

Shawn Stevens
Food Industry Consultant and Lawyer
stevens@foodindustrycounsel.com
920.698.2561



FoodIndustry
COUNSEL LLC

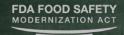


Why is FSMA needed?
What is the Preventive Control Rule?
Who is covered and relevant deadlines?
What are the Key Elements?
What might a "compliant" plan look like?
What resources are available to build your own?





















526 pages



Participant Manual

40 slides



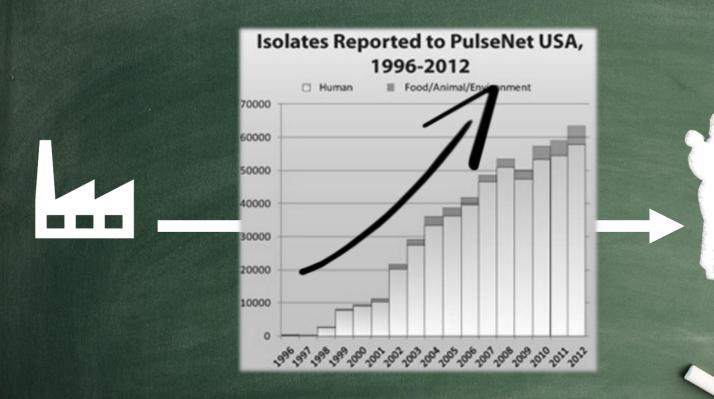


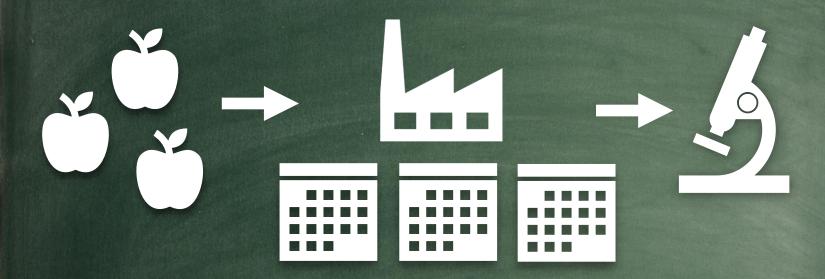


















FDA WAS COMMANDED TO
MAKE OUTBREAKS AND RECALLS STOP









TITLE 21 OF THE CODE OF FEDERAL REGULATION PART 117 21 C.F.R. 117.1 et seq.



FEDERAL REGISTER

Vol. 80

Thursday,

No. 180

September 17, 2015

Part II

Department of Health and Human Services

Food and Drug Administration
21 CFR Parts 1, 11, 16, 106, 110, et al.
Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based
Preventive Controls for Human Food; Final Rule

Current Good Manufacturing Practice, Hazard Analysis, and Risk-based Preventive Controls



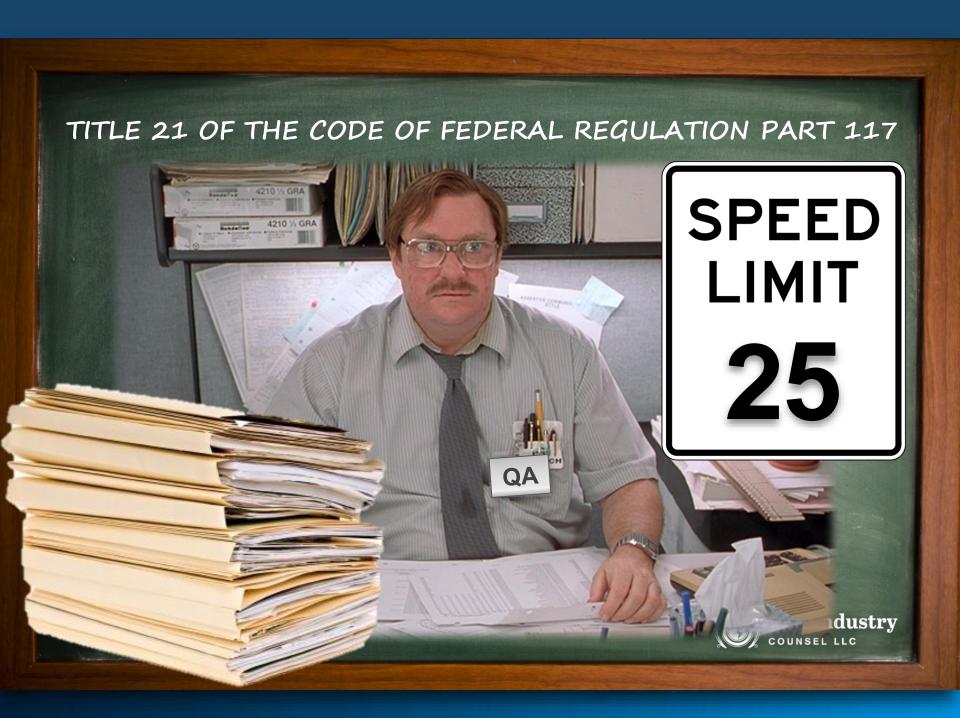


TITLE 21 OF THE CODE OF FEDERAL REGULATION PART 117 21 C.F.R. 117.1 et seq.



Current Good Manufacturing Practice, Hazard Analysis, and Risk-based Preventive Controls





TITLE 21 OF THE CODE OF FEDERAL REGULATION PART 117

1 C.F.R. 117.1 et

SUBPART A: Gene Provisions

SUBPART B: Current od M facturing Practice

SUBPART C: Hazard An and Preventive Controls

SUBPART D: Modified ments

SUBPART E: Wither al of a lifted Facility Exemption

SUBPART F: Re ements Apply to Records

SUBPART F: ply Chain Program





WHO IS COVERED?

Food facilities that are required to register with FDA

Facilities that manufacture, process, pack or hold human food for consumption in the United States*



*Farms and Retail Establishments are exempt





WHAT ARE THE COMPLIANCE DEADLINES?

General Compliance Deadline: September 18, 2016

Small Businesses Deadline: September 18, 2017*



*Companies with less than 500 employees





WHAT ARE THE MAIN ELEMENTS?

PREVENTIVE CONTROLS QUALIFIED INDIVIDUAL



WRITTEN FOOD SAFETY PLAN

FSMA





WHAT ARE THE MAIN ELEMENTS?

PREVENTIVE CONTROLS
QUALIFIED INDIVIDUAL



A "Qualified Individual" is an individual who has successfully completed training in the development and application of risk-based preventative controls at least equivalent to that received under a standardized curriculum recognized as adequate by FDA, or is otherwise qualified through job experience to develop and apply an effective food safety system [may be an employee of the facility]

FSPCA

FOOD SAFETY PREVENTIVE CONTROLS ALLIANCE





WHAT ARE THE MAIN ELEMENTS?

WRITTEN FOOD SAFETY PLAN

FSMA



- Hazard Analysis
 (to identify reasonably foreseeable food safety risks)
- Preventative Controls
 (to control for and minimize those risks)
- Verification and Monitoring Procedures
 (to verify and monitor that the controls are working)
- Corrective Action Procedures
 (to correct any deviations and prevent recurrence)
- Supply Chain Program
 (to identify hazards and needed controls, and approve suppliers)
- Recall Plan

 (what to do in the event of a recall)





FROZEN IQF VEGETABLES

WRITTEN FOOD SAFETY PLAN

FSMA

HAZARDS

Fields
Harvest
Receipt
Cutting
Environment
Allergens
Foreign Objects
Packaging

Biological Chemical Physical CONTROLS

GMPs
Facilities
Wash systems
IQF Tunnel
Validations
EMPs
Metal detection
Finished Product Testing

VERIFICATION & MONITORING

CORRECTIVE ACTIONS





	PRODUCT(S) Ground Black Pepper		PAGE 1 of 12
	PLANT NAME: Example	ISSUE DATE	2/24/2016
1	ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Selected Sections of a

Food Safety Plan for Ground Black Pepper

Teaching Example

Reviewed by:	Plant Manager	Date:

The information in this example is for training purposes only and does not represent any specific operation. Many processing steps were omitted or combined to facilitate its use for class exercises. It is not complete and contains both required and optional information.

Because development of a Food Safety Plan is site specific, it is highly unlikely that this plan can be used in a specific facility without significant modification. Conditions and specifications used (e.g., validation information) are for illustrative purposes only and may not represent actual process conditions.







PRODUCT(S) Ground Black Pepper		PAGE 2 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Table of Contents

- Receiving shelf stable ingredients:	
- Receiving packaging:	
- Ingredient storage:	
- Packaging storage:	(\)
- Cleaning:	
- Pathogen destruction:	
- Grinding:	
- Metal detection:	
- Packaging:	
- Storage:	
- Shipping:	
Hazard Analysis	
Process Preventive Controls	
Allergen Preventive Controls	
- Allergen Cross-contact Prevention	
Sanitation Preventive Controls	
- Allergen Cleaning of Filler	
- Hygienic Zoning/ Environmental Monitoring	
Supply-chain-applied Controls	
- Approved Suppliers for Ingredients Requirir	ng a Supply-chain-applied Control
7 (0	







PRODUCT(\$) Ground Black Pepper		PAGE 3 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS 193 ABC Street, USA	SUPERSEDES	10/20//2015

Company Overview

This example company is a small firm that makes a variety of spices that may be single spices or blends. They are assumed to be ready-to-eat because they may be used as is or in cooked products. Products include ground black pepper, black pepper rub (which includes whey protein, sugar and salt); and green, white and black peppercorn mix. The black pepper rub is blended in a separate room to prevent cross-contact issues. The only potential concern for allergen cross-contact is at filling.

Product is made 5 days a week in one 8 hour production shift, followed by 2 hours for sanitation. A sanitary facility program is in place, with dry cleaning procedures enforced in most production areas of the facility to minimize establishment of environmental pathogens. A separate wet-washing room is used for washing, drying and sanitizing small equipment. Water is treated and tested per EPA requirements by the city. An integrated pest control program is also in place. The company follows guidance from the American Spice Trade Association for production of safe and clean spices.

This Food Safety Plan covers production of ground black pepper. Other products have separate Food Safety Plans.

Product Description

Ground Black Pepper		
Dried ground black pepper		
Black peppercorns		
Food grade steel container with plastic lid		
The product is considered ready-to-eat. It is used to flavor		
prepared foods or used as part of a recipe		
General public		
~ 2 years ambient		
None		
Dried, ambient temperature		
Date:		
10/8/2015		





Verified by:

PRODUCT(\$) Ground Black Pepper	PAGE 4 of 1		
PLANT NAME: Example	ISSUE DATE	2/24/2016	
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015	

Receiving Shelf Stable Ingredients

Ingredient Storage

Ingredient Storage

Cleaning

Pathogen Destruction

Grinding

Metal Detection

Packaging

Storage

Storage

Storage

Storage

NOTE: Several more steps are usually included in a real process. This process is for teachingpurposes only.







PRODUCT(\$) Ground Black Pepper		PAGE 5 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Process Narrative

Ingredients and raw materials are purchased from reputable suppliers that comply with internationally recognized food safety and quality systems. For each ingredient the same brand is used consistently to minimize variation. Ingredients are stored according to manufacturers' recommendations when specified.

Receiving shelf stable ingredients:

Black Peppercorns are typically received in 50 pound bags with appropriate labeling and coding to ensure adequate traceability.

Receiving packaging:

Food grade steel containers and plastic lids are received in a bulk shipment on pallets. Specifications require food grade material for packages that is compatible with dried storage of food products.

Ingredient storage:

Dried black peppercoms are stored in the dry ambient storage room dedicated for ingredients, arranged by ingredient code number. All containers are sealed to avoid contamination during storage.

Packaging storage:

Containers and lids are stored in dry ambient storage segregated from ingredients. Packages are stored in covered containers to protect from contamination.

Cleaning

As received, peppercoms may be contaminated with dust, dirt, stones, metal and other foreign material. The peppercoms are cleaned by passing over sieves of varying sizes and magnets to separate foreign material and provide uniform peppercom size. Unusual findings of foreign material and extraneous vegetative material are investigated. A library of "unusual findings" photographs are maintained for training purposes and may include wire, extraneous vegetative material, rodent droppings or other filth, etc. Many of these represent potential adulteration issues, which are addressed by contacting the supplier and potential delisting as an approved supplier. No allergen containing materials are passed over these devices.

Pathogen destruction:

A validated heat treatment method is used for pathogen destruction. Testing post-process for Salmonella is conducted daily to verify efficacy.

Grindina

Material is ground according to product specifications to achieve correct particle size for food application and appearance. Grinding occurs on a mill line utilizing roller mills and sifter screens. Screen size is selected to obtain desired particle size.

Metal detection:

Finished product passes through an in line metal detector prior to packaging since the product is packaged in a metal can. Rejected material is diverted prior to filling in the metal container. All rejected product is examined for the presence of metal.

Packaging:

Ground black pepper is packaged in a metal tin with a plastic lid and coded with the appropriate lot and day code designation. The finished product is cased and coded.

Storage:

Finished product is stored ambient and dry until distributed.

Shipping:

Product is shipped in ambient trucks to customers.







PRODUCT(S) Ground Black Pepper		PAGE 6 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Hazard Analysis Hazard identification (column

Hazard identification (column 2) considers those that may be present in the food because the hazard occurs naturally, the hazard may be unintentionally introduced, or the hazard may be intentionally introduced for

- B = Biological hazards including bacteria, viruses, parasites, and environmental pathogens
- C = Chemical hazards, including radiological hazards, food allergens, substances such as pesticides and drug residues, natural toxins, decomposition, and unapproved food or color additives
- P = Physical hazards include potentially harmful extraneous matter that may cause choking, injury or other adverse health effects

(1)	(2)	(3	3)	(4)	(5)	1	6)
Ingredient/	Identify potential		any	Justify your decision for column 3	What preventive control	⊳ Is t	
Processing	food safety hazards		ential		measure(s) can be applied to	preve	
Step	introduced,		safety		significantly minimize or	cont	
	controlled or enhanced at this		ards iire a		prevent the food safety hazard? Process including CCPs,		
	step		iire a entive		Allergen, Sanitation, Supply-	this step?	
	step		trol?		chain, other preventive control		
		Yes	No	1	chain, other preventire control	Yes	No
Receiving	B Vegetative	Х		Salmonella and pathogenic E.	Process Control: Subsequent		Х
shelf stable	bacteria such as			coli recalls and outbreak history	inactivation step		
ingredients -	Salmonella and						
peppercorns	pathogenic E.						
	coli			5			
	C Pesticides	Х		Imported product	Supply-chain Control:	Х	
					Verification of supplier		
					Certificates of Analysis for		
					pesticide residues		
	P Foreign		X	Unavoidable foreign material is			
	material (e.g.,			associated with the growing and			
	stones, wire			harvesting environment.			
	etc.)		4	Subsequent grinding eliminates			
		-	1	potential physical hazards, but			
			1	presents potential adulteration			
				issues. Metal may damage			
		00		grinding equipment.			
	B None	· ·					
	C None						
	P None						
Ingredient	B None						
	C None						
	P None						
Packaging	B None						
storage	C None						
	P None						
Cleaning	B None						
	C None						
	P Foreign		Х	Addresses potential			
	material			adulteration but not safety - see			

ELEMENT 1 Hazard Analysis







PRODUCT(S) Ground Black Pepper		PAGE 7 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

(1)	(2)	(3)	(4)	(5)	(6	5)
Ingredient/	Identify potential	Do	any	Justify your decision for column 3	What preventive control	Is t	he
Processing	food safety hazards	pote	ential		measure(s) can be applied to	preve	ntive
Step	introduced,	food	safety		significantly minimize or	cont	rol
	controlled or	haz	ards		prevent the food safety hazard?	applie	d at
	enhanced at this		iire a		Process including CCPs,	this s	tep?
	step		entive		Allergen, Sanitation, Supply-		
		con	trol?		chain, other preventive control		1
		Yes	No		4	Yes	No
Pathogen	B Vegetative	X		History of outbreaks and recalls	Process Control: Heat	X	7
destruction	pathogens such			show these organisms may be	treatment for pathogen	0.7	. 4
	as Salmonella			present	reduction	7	
	and pathogenic					P	
	E. coli						
	CNone						
	P None						
Grinding	B Environmental	X		Post pasteurization	Sanitation Control: Zoning	X	
o mong	pathogens such	-		contamination, cross	and dry sanitation	^	
	as Salmonella			contamination	and dry sameacion		
	C None	_	_	contamination	6		_
	P Metal	X	_	Forder on the House of the Hous	San Control S. Lorenzo		v
	Pivietai	^		Equipment failure can	Process Control: Subsequent		Х
	<u> </u>		_	potentially introduce metal	metal detection		
Metal	B None						
detection	C None						
	P Metal	X		Potential equipment failure at	Process Control: Metal	X	
				grinding step	detection		
Packaging	B Environmental	Х		Post pasteurization	Sanitation Control: Zoning	Х	
	pathogens such			contamination, cross	and dry sanitation		
	as Salmonella			contamination	,		
	CUndeclared	X		Other products packed contain	Allergen Control: prevent	X	
	allergens		- 4	allergens	allergen cross-contact		
	P None	-	4	uncrgens	anergen cross-contact		_
Storage	B None		1				
Storage	C None		1	-			
	P None	-	9			-	-
Chinalan		1	_			_	
Shipping	B None	~	_			_	
	C None		<u> </u>			_	
	P None	1		I		l	

ELEMENT 1 Hazard Analysis







PRODUCT(S) Ground Black Pepper		PAGE 8 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Process Preventive Controls

Process Control(s)	Hazard(s)	Critical Limits	Action Activiti							Action Activi			Action Activ		Action Action Action		Action				Verification Activities	Records
			What	How	Frequency	Who																
Pathogen Destruction	Vegetative pathogens such as Salmonella and pathogenic E.	X°F for Y¹ minutes as a heat treatment for peppercorns	Review time and temperature on recording chart to meet parameters listed under critical limits	recorder	After initial temperature is reached, conduct continuous monitoring by visual check of recording instrument chart during each run.	equipment operator	If parameters are not met then reprocess. Determine the root cause of processing failure and correct to prevent recurrence.	Calibrate equipment once per month QA manager or designee reviews and initials records daily Quarterly generic E. coli and Salmonella testing	Pathogen Destruction Processor Log Recording device calibration records Corrective actions Validation study by American Spice Trade Association demonstrating that the time/ temperature exposure for peppercoms heat is sufficient for a 5-log inactivation. Copy of report is in the plan.													
Metal Detection			See Food Safety Plan in curriculum for an example for potential wording for metal detection. Parameters can vary depending on the product, packaging, detection system, etc.																			

ELEMENT 2
Preventive
Controls
(Process)

ELEMENT 3
Monitoring /
Verification

ELEMENT 4
Corrective
Actions





¹ An actual plan would insert specific temperature and time. No specific numbers are used in this model to prevent misapplication of parameters that may not apply to a specific product.



PRODUCT(S) Ground Black Pepper	PAGE 9 of 12	
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Allergen Preventive Controls Allergen Cross-contact Prevention

Production Line Allergen Assessment

		Intentional Allergens							
Product Name	Productio n Line	Egg	Milk	Soy	Wheat	Tree Nut (market name)	Peanut	Fish (market name)	Shellfish (market name)
Ground black pepper	1						- 4	1	
Green, white and black peppercorn mix	1					(•	
Black pepper rub	1		X Unique allergen						

Scheduling Implications: Black pepper rub is the only product that contains a food allergen (milk from whey protein). This product is run at the end of the day. A capital request has been submitted to obtain a dedicated filler for this product to minimize the risk of allergen cross-contact.

Allergen Cleaning Implications: Dry cleaning procedures must be used in all production areas. The filler head is completely dismantled after the Black Pepper Rub product is run for through cleaning using alcohol wipes to ensure that there is no visible residue. Swabs have been taken to validate the effectiveness of this cleaning method to remove milk protein to non-detectable levels on a routine basis. The cleaning crew is trained on this procedure, including its importance.

ELEMENT 2
Preventive
Controls
(Allergens)







PRODUCT(\$) Ground Black Pepper		PAGE 10 of 12
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Sanitation Preventive Controls

Allergen Cleaning of Filler

Purpose: Remove the food allergen, milk, from the filler head to prevent potential allergic reaction in sensitive individuals and to prevent mis-labeling of product.

Frequency: After each run of Black Pepper Rub

Who: Sanitation crew

Procedure:

- Completely dismantle filler chute following dismantling photograph and take parts to the cleaning area.
- Wet wash parts that can be exposed to water (refer to photo²)
- Use food contact surface grade alcohol wipes to wipe down parts that cannot be exposed to water until there is no visual reside (refer to photo)
- Allow filler parts to dry completely!
- 5. Reassemble dry filler parts prior to production

Monitoring: Visually observe the filler parts prior to reassembly of the filler to ensure they are both clean and dry.

Corrections: In the filler head is not properly clean (e.g., visible residue or wet), the employee is instructed on how to properly clean the parts and the importance of doing so to prevent potential allergic reactions.

Records: Allergen cleaning log

Verification: Visyal inspection of the parts prior to assembly by the sanitation supervisor. Allergen cleaning log is reviewed within one week. ELEMENT 2
Preventive
Controls
(Sanitation)







PRODUCT(S) Ground Black Pepper		PAGE 11 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 123 ABC Street, USA	SUPERSEDES	10/20//2015

Hygienic Zoning/ Environmental Monitoring

Purpose: Hygienic zoning in post-pathogen destruction area is important to minimize the potential of re-contamination with environmental pathogens.

Contains Nonbinding Recommendations

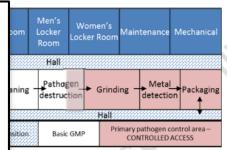
Control of Listeria monocytogenes in Ready-To-Eat Foods: Guidance for Industry Draft Guidance

This guidance is being distributed for comment purposes only.

Although you can comment on any guidance at any time (see 21 CFR 10.115(g)(5)), to ensure that FDA considers your comment on this draft guidance before we begin work on the final version of the guidance, submit either electronic or written comments on the draft guidance within 180 days of publication in the Federal Register of the notice announcing the availability of the draft guidance. Submit electronic comments to http://www.regulations.gov. Submit written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number FDA-2007-D-0494 listed in the notice of availability that publishes in the Federal Register.

For questions regarding this draft document contact the Center for Food Safety and Applied Nutrition (CFSAN) at 240-402-1700.

U.S. Department of Health and Human Services Food and Drug Administration Center for Food Safety and Applied Nutrition January 2017



ividuals entering the Post Pathogen Destruction area (in

g the Post Pathogen Destruction area must (in the order

ck from the rack outside the production area and put them outer clothing that would be above the processing line. from the box by the entry and put them on over shoes. In the box by the entry and put it on. Ensure that all loose th facial hair should also apply beard nets. entering the area following the procedures posted by the

deposit smocks, shoe covers and hair nets in the O NOT reuse disposable items after entering

ors must follow the procedures above but use white foot when entering this area. Traffic in this area is minimized

pervisor visually observes the presence of the properly efore start up and after lunch break, and every 2 hours. ructed to gown properly.

g Record, Environmental Monitoring Sampling Record

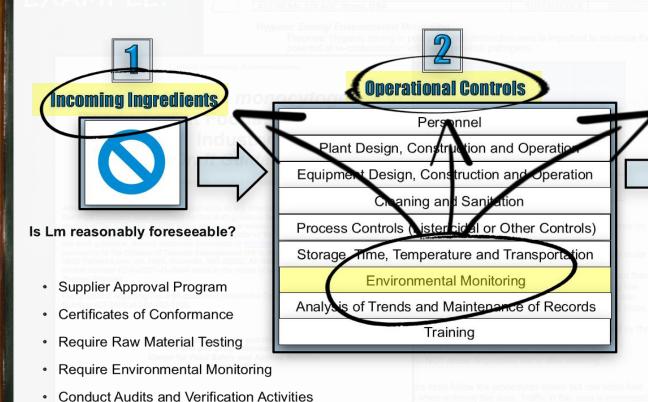
onitoring for verification of sanitation preventive controls week.

ELEMENT 2
Other
Controls
(Hygienic
Zoning)

(Environmental Monitoring)









Finished Product Testing

FDA Recommends Testing:

- · Verification Purposes
- · Periodic Testing
- · Sample for Lm
- Test and Hold



PRODUCT(S) Ground Black Pepper		PAGE 12 of 12
PLANT NAME: Example	ISSUE DATE	2/24/2016
ADDRESS: 125 ABC Street, USA	SUPERSEDES	10/20//2015

Supply-chain-applied Controls

Hazards requiring a supply-chain-applied control: Hazard analysis determined that pesticides require a supply-chain-applied control for raw black peppercorns. Our process does not reduce pesticides.

Preventive controls applied by the supplier: The supplier sources pepper from producers that use good agricultural practices and apply only approved pesticides. Periodic pesticide screening is conducted by the supplier to verify compliance.

Verification activities: The supplier sends Certificates of Analysis (COA) for pesticide residues for our review to verify supplier control for these hazards, minimum quarterly.

Verification procedures: The Quality Supervisor:

- verifies that copies of COAs received from the supplier for pesticide residues comply with regulatory requirements following procedure XYZ
- · verifies that quarterly submission of COA requirements have been met
- · enters the date of the results of the review into the Pesticide Screen Log

Records: COA copies for pesticides, Pesticide Screen Log, Incoming Goods Log, Approved Supplier List, and verification of corrective actions taken by the supplier are maintained on file by the Quality Manager.

Approved Suppliers for Ingredients Requiring a Supply-chain-applied Control

Ingredient (requiring supply-chain- applied control)	Approved Supplier	Hazard(s) requiring supply-chain- applied control	Date of Approval	Verification method	Verification records
Black peppercoms	Spice4U Co., Port, USA	Pesticides	10/08/2010	Supplier's Certificate of Analysis (COA) quarterly	COA, Pesticide Screen Log, Incoming Goods Log, corrective records

Receiving procedures: For each shipment received, the receiving clerk verifies that the product is from an approved supplier and documents this in the Incoming Goods Log.



RECALL PLAN

21 C.F.R 7.40-59

- · Health Hazard Assessment
- · Depth of the Recall
- Recall communications
- Public Warning
- Effectiveness Checks

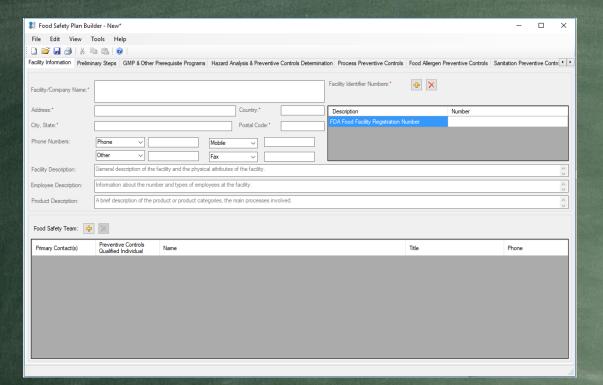


















Facility Information
Preliminary Steps

Good Manufacturing Practices (GMP) & Prerequisite Programs
Hazard Analysis & Preventive Controls
Process Preventive Controls
Food Allergen Preventive Controls
Sanitation Preventive Controls
Supply-Chain Preventive Controls
Recall Plan
Reanalysis of Food Safety Plan
Food Safety Plan Report
Signature
Recordkeeping Procedures
Important Contacts
Supporting Documents









https://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm539791.htm







RECORD KEEPING REQUIREMENTS

Records must be maintained with respect to all elements of the food safety plan

Offsite records must be made available within 24 hours

Must be maintained for a period of 2 years









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Shawn Stevens
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stevens@foodindustrycounsel.com
920.698.2561