

Surimi

Generic HACCP Plan

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1. Product Description

Aquatic Product Raw Material:	Pacific whiting (<i>Merluccius spp.</i>); pollock (<i>Theragra chalcogramma</i>)
Raw material harvest Area:	Off Oregon coast
Raw material received:	Directly from harvester
Finished Product:	Frozen surimi
Food additives, ingredients, processing aids:	Sorbitol, sugar, polyphosphate, protease inhibitor, water
Shipping:	Shipped in the firm's refrigerated trucks
Intended use:	Raw material for fully-cooked imitation seafood products
Intended consumers:	General public

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2. Flow Diagram

Receiving	Receiving	Raw fish received at dock; ingredients received at loading platform
Refrigerated storage	Dry storage	Refrigerated storage at or below 40°F; dry storage at ambient temperature
Heading		Mechanical heading equipment
Gutting		Mechanical gutting equipment
Filleting		Mechanical filleting equipment
Deboning		Mechanical deboning equipment
Mincing		Mechanical mincing equipment

Wash		Wash tanks
Dewater		Dewatering screens
Wash		Wash tanks
Dewater		Dewatering screens
Mix		Mixing bin
Refine		Refiner
Dehydrate		Screw dehydrator
Blend	<- <-	Blender
Form		Former
Freeze		Freezer
Package		Packing table
Frozen Storage		Freezer
Ship		Ship in firm's trucks

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3. Potential Hazards

1. **Potential species-related hazards:** (FDA's Draft Hazards and Controls Guide)
 - a. None
2. **Potential process-related hazards:** (FDA's Draft Hazards and Controls Guide)
 - a. Metal Inclusion
 - b. Food and Color Additives

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4. Hazard Analysis Worksheet

(1)	(2)	(3)	(4)	(5)	(6)
Ingredient/	Potential	Is the Potential	Justification for Inclusion or	Preventive	Critical

Processing Step	Hazard Introduced or Controlled	Hazard Significant (Reasonably Likely to Occur - Yes/No)	Exclusion as a Significant Hazard (Consider the likelihood that the hazard would or would not be introduced, or intensified, or a hazard from a previous step can be controlled)	Measure(s) for the Significant Hazard from Column 3 (Existing plus additional, if needed)	Control Point (Yes/No)
Receiving	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL None	No	N/A	N/A	No
Storage	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL None	No	N/A	N/A	No
Heading	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL Metal inclusion	Yes	Mechanical heading equipment	Metal detector at packaging	No
Gutting	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL Metal inclusion	Yes	Mechanical gutting equipment	Metal detector at packaging	No
Filleting	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL Metal inclusion	Yes	Mechanical filleting equipment	Metal detector at packaging	No
Deboning	BIOLOGICAL None	No	N/A	N/A	No
	CHEMICAL None	No	N/A	N/A	No
	PHYSICAL Metal inclusion	Yes	Mechanical deboning equipment	Metal detector at packaging	No
Mincing	BIOLOGICAL None	No	N/A	N/A	No

	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	Metal inclusion	Yes	Mechanical mincing equipment	Metal detector at packaging	No
Wash	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	None	No	N/A	N/A	No
Dewater	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	None	No	N/A	N/A	No
Wash	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	None	No	N/A	N/A	No
Dewater	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	None	No	N/A	N/A	No
Mix	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	Metal inclusion	Yes	Mechanical mixing equipment	Metal detector at packaging	No
Refine	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	Metal inclusion	Yes	Mechanical refiner	Metal detector at packaging	No
Dehydrate	BIOLOGICAL				
	None	No	N/A	N/A	No
	CHEMICAL				
	None	No	N/A	N/A	No
	PHYSICAL				
	Metal inclusion	Yes	Mechanical screw dehydrator	Metal detector at packaging	No

Blend	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	Food and color additives	No	The ingredients used are not a food safety hazard	N/A	No
	PHYSICAL	None	No	N/A	N/A	No
Form	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	None	No	N/A	N/A	No
	PHYSICAL	None	No	N/A	N/A	No
Freeze	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	None	No	N/A	N/A	No
	PHYSICAL	None	No	N/A	N/A	No
Package	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	None	No	N/A	N/A	No
	PHYSICAL	Metal inclusion	Yes	Mechanical processing steps	Metal detector	Yes
Freezer	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	None	No	N/A	N/A	No
	PHYSICAL	None	No	N/A	N/A	No
Ship	BIOLOGICAL	None	No	N/A	N/A	No
	CHEMICAL	None	No	N/A	N/A	No
	PHYSICAL	None	No	N/A	N/A	No

Reviewed by:

Date:

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5. HACCP Plan Form: Surimi Processing

(1) Critical Control Point (CCP)	(2) Hazard	(3) Critical Limits of the	(4) What	(5) How	(6) Frequency	(7) Who	(8) Corrective Actions	(9) Records	(10) Verification
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		Preventive Measures							
Packaging	Metal inclusion	Perform no processing without a metal detector	Packaged product	Metal detector	Each package	Automatic reject	Destroy or reprocess	Metal detector record	Daily record review; Metal detector calibration

Reviewed by:

Date:

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6. Daily Metal Detector Record

Date:

Processing line:

CALIBRATION CHECK

Time	Results	Comments	Initials
	Pass _____		
	Fail _____		

REJECT RECORD

Time	No. of packages rejected	Disposition of packages	Comments	Initials

Reviewed by:

Date:

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