

Slide 1

HACCP Controls in Wholesale  
Commerce

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*North Carolina Sea Grant*

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Slide 2

**Fish**

- ◆ Freshwater or saltwater finfish, crustacea, aquatic animal life (including alligators, frogs, aquatic turtles, jellyfish, sea cucumbers, sea urchins and roe) other than birds or mammals, and all mollusks, where such animal life is intended for human consumption

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**Fishery Product**

- ◆ Any human food product where fish is a characterizing ingredient

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Slide 4

**Processing**

- ◆ Handling, storing, preparing, heading, eviscerating, shucking, freezing, changing into different market forms, manufacturing, preserving, packing, labeling, dockside unloading or holding fish or fishery products

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**This regulation does not apply to:**

- ◆ The harvest or transport of fish or fishery products
- ◆ Practices such as heading, eviscerating or freezing intended solely to prepare a fish for holding on a harvest vessel
- ◆ The operation of a retail establishment

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Slide 6

**HACCP**

- ◆ A proactive, not a reactive approach to food safety
- ◆ A management tool to protect the food supply against biological, chemical and physical hazards that can be controlled by the processor

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Slide 7

**HACCP**

- ◆ Designed to **prevent, eliminate or minimize** the risk of food-safety hazards
- ◆ Not a zero-risk management system

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**General Sanitation Requirement**

- ◆ Current GMP regulations are the standard for proper sanitation conditions and practices
- ◆ Sanitation controls do not have to be included in the HACCP plan but...
- ◆ Sanitation controls that are not part of the HACCP plan must be monitored
- ◆ Sanitation conditions and corrective actions must be documented
- ◆ Written sanitation procedures are encouraged

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**Eight key sanitation conditions/practices**

- ◆ Safety of water
- ◆ Condition and cleanliness of food-contact surfaces
- ◆ Prevention of cross-contamination
- ◆ Maintenance of hand-washing, hand-sanitizing and toilet facilities
- ◆ Protection from adulterants
- ◆ Labeling, storage and use of toxic compounds
- ◆ Employee health conditions
- ◆ Exclusion of pests

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**Hazards**

- ◆ Hazards that are "reasonably likely to occur" are those "for which a prudent processor would establish controls"
- ◆ Decision is based on:
  - Experience
  - Illness data
  - Scientific reports
  - Other information (e.g., FDA Hazards and Control Guide)

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**Hazards**

- ◆ Biological: *pathogenic bacteria, viruses and parasites*
- ◆ Chemical: *natural toxins, pesticides, drug residues, decomposition (histamine)*
- ◆ Physical: *metal, glass, wood*
- ◆ Allergens: *milk, eggs, fish, crab, lobster, shrimp, tree nuts, wheat, soybeans*

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**Critical Control Point (CCP)**

- ◆ A point in the manufacturing process where **control** can be applied to prevent, eliminate or minimize a food-safety hazard

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**Critical Limit**

- ◆ A maximum and / or minimum value to which a biological, chemical or physical parameter must be controlled at a CCP to control the occurrence of a food-safety hazard

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**Monitoring**

- ◆ A measurement or observation to assess if a CCP is operating within the critical limit
- ◆ Real time and accurate physical or chemical measurements (for quantitative critical limits) or observation (for qualitative critical limits)
- ◆ Can be continuous or intermittent
- ◆ Conducted by personnel trained to perform a specific monitoring activity

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**Commodities Subject to the HACCP Rule**

- ◆ Shrimp
- ◆ Histamine Fin Fish – *amberjack, bluefish, mackerel, mahi-mahi, shad, tuna, wahoo*
- ◆ Cooked, ready-to-eat seafood – *crabmeat*
- ◆ Shellfish
- ◆ Smoked Fish

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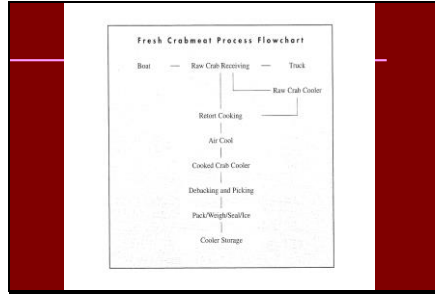
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Slide 17

### Harvesting

- ◆ **Significant hazards:** Pathogens, natural toxins (i.e., ciguatera), histamine formation, aquaculture drugs
- ◆ **Control-measure objectives:** Prevent or minimize hazards to acceptable levels
- ◆ **Examples:** Shellfish harvest tags; ice histamine fish, ciguatera advisories.

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### Receiving

- ◆ **Significant hazards:** Presence of pathogens, histamine or sulfites
- ◆ **Control-measure objectives:** Prevent, eliminate or minimize hazards
- ◆ **Examples:** Shellfish harvest tags, temperature of histamine fish, shrimp

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**Processing**

- ◆ **Significant hazards:** Presence of pathogens
- ◆ **Control-measure objectives:** Prevent introduction of or eliminate pathogens
- ◆ **Examples:** Fresh and pasteurized crabmeat, smoked seafood

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**Weigh and Pack**

- ◆ **Significant hazards:** Glass or metal particulates in finished product
- ◆ **Control-measure objectives:** Segregate contaminated product
- ◆ **Examples:** Use of metal detectors; visual inspection of glass containers

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**Labeling**

- ◆ **Significant hazards:** Presence of allergens (i.e., dairy, tree nuts, sulfites)
- ◆ **Control-measure objectives:** Alert consumers to presence of allergens
- ◆ **Examples:** Label declarations of ready-to-cook seafood meals

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**Storage**

- ◆ **Significant hazard:** Growth of pathogens
- ◆ **Control-measure objectives:** Prevent time-temperature abuse
- ◆ **Examples:** Continuous temperature monitoring (live shellfish); presence of ice (histamine fish, cooked crabmeat)

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**Transit**

- ◆ **Significant hazard:** Growth of pathogens
- ◆ **Control-measure objectives:** Prevent time-temperature abuse
- ◆ **Examples:** Continuous temperature monitoring of truck's refrigerated compartment

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**Corrective Action §123.7**

- ◆ Whenever a deviation from a critical limit occurs, a processor shall take corrective action to eliminate the cause of the deviation and restore process control
- ◆ Identify product that was produced during the deviation and determine its disposition

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**Ongoing Verification**

- ◆ Consumer complaint review
- ◆ Calibration of process-monitoring instruments
- ◆ Periodic end-product and in-process testing (processor's option)

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**Records §123.9**

- ◆ Records required by the regulation:
  - Monitoring records
  - Corrective-action records
  - Calibration records
  - Verification records
  - Sanitation-control records
  - Importer-verification records

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**Record retention**

- ◆ One year for refrigerated products
- ◆ Two years for frozen or preserved products

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A HACCP plan shall be specific to:

- ◆ Each processing location
- ◆ Each species of fish and type of fishery product

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Questions?

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