

HACCP Applications to Meat and Broiler Slaughter Plants

A Look at HACCP Developer

Video Illustration

Example on HACCP Application to a Meat and Poultry Processing Facility

HACCP Records

A. Related to the HACCP plan

1. List of HACCP team members and their responsibilities
2. Product description and intended use
3. Process flow diagram indicating CCP's
4. List of hazards at each CCP and preventive actions
5. Critical limits at each CCP
6. Monitoring records
7. Deviation response at each CCP
8. HACCP plan verification
9. HACCP plan validation
10. Auditing evaluation
11. HACCP team training

B. Basic hygiene and safety procedures

1. Ingredients and products
2. Supplier certification
3. Supplier audits
4. Incoming materials and additives
5. Storage times and temperatures for supplies
6. Use of additives

C. Processing

1. CCP monitoring and the persons responsible
2. Procedures used
3. Calibration of monitoring instruments

D. Packaging

1. Material compatible with specifications
2. Closures compatible with specifications

E. Storage and distribution

1. Temperature in storage and shipping rooms
2. Shipping temperature and expiration dates

F. Cleaning and disinfection (SSOP's)

1. Cleaning and disinfection (materials and methods)
2. Insect and rodent control
3. Water chlorination
4. Waste treatment and disposal

Product/Process Description Raw frozen chicken (broiler) parts packed in polypropylene. Product to be fully cooked before consumption

Product Name: Frozen poultry parts

Intended Use:

Consumer: General population

Packaging: Polypropylene and carton box

Shelf Life: 6 months

Storage and Distribution: In frozen condition

Destination: Supermarkets

Labeling Instructions: Keep frozen at all times

Special Distribution Control: Maintain product frozen. Preparation and serving procedure entail defrosting in refrigerator overnight, cooking properly before serving.

Raw Materials Analysis

Plan Name: Raw frozen chicken (broiler) parts

Raw Material Category	Raw Material	Hazard	Critical
Meat, Poultry, or Seafood	Frozen chicken	B: Pathogens	Yes

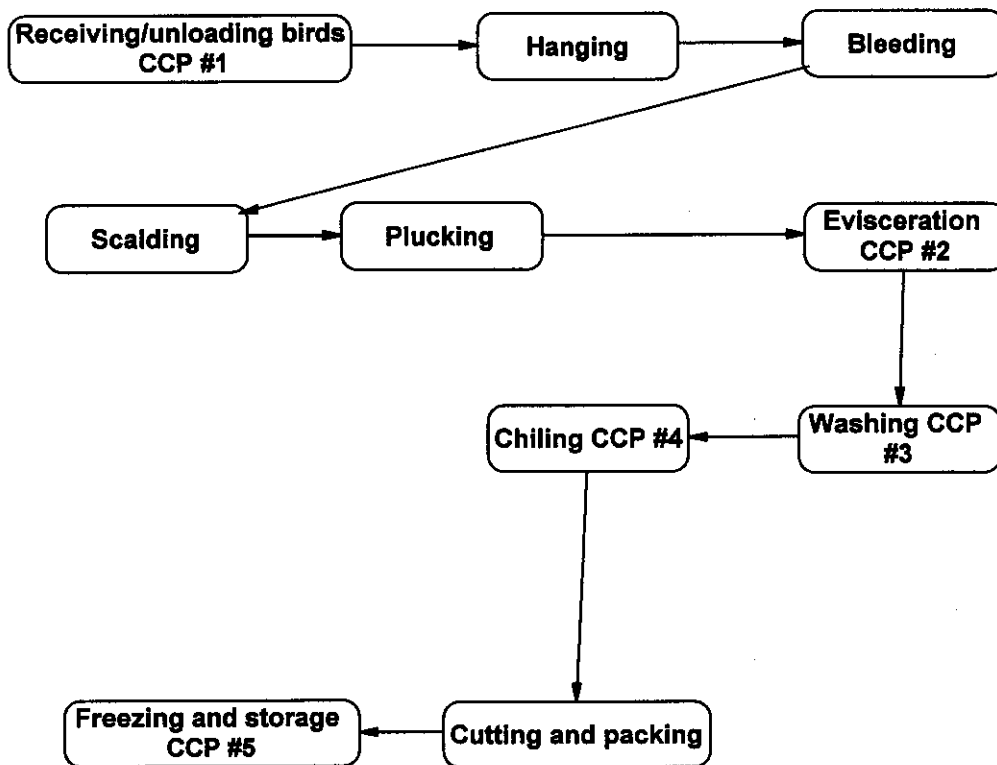
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Plan: Raw frozen chicken (broiler) parts



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Hazards List

Plan Name: Raw frozen chicken (broiler) parts

Process Step	Biological	Chemical	Physical
Receiving/unloading birds	Pathogens		
Hanging	Pathogens		
Bleeding	Pathogens		
Scalding	Pathogens		
Plucking	Pathogens		
Evisceration	Pathogens		
Washing	Pathogens		
Chiling	Pathogens		
Cutting and packing	Pathogens		
Freezing and storage	Pathogens		

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Hazard Analysis

Plan Name: Raw frozen chicken (broiler) parts

Process Step	Identified Potential Hazards	Reasonably Likely to Occur?	Basis for Decision	Control Measures	CCP?
Receiving/unloading birds CCP 1	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Likelihood of infected birds	Supplier control, specifications, cleaning and sanitation, training Sanitation	Yes
Hanging	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Infected birds	Specifications, cleaning and sanitation, training	No
Bleeding	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Infected birds	Production equipment, training	No
Scalding	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Infected birds	Production equipment, cleaning and sanitation, training	No
Plucking	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Infected birds	Facilities, production equipment, training	No

Process Step	Identified Potential Hazards	Reasonably Likely to Occur?	Basis for Decision	Control Measures	CCP?
Evisceration CCP 2	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Process contamination as vicera removed	Production equipment, cleaning and sanitation, personal hygiene, and training	Yes
Washing CCP 3	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Contaminated water from the washing process/bin	Production equipment, training	Yes
Chiling CCP 4	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Improper temperature control	Production equipment and training	Yes
Cutting and packing	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Carry over from washing step	Production equipment, cleaning and sanitation, training	No
Freezing and storage CCP 5	B: Pathogens C: No chemical hazards P: No physical hazards	Yes	Improper equipment and holding conditions	Production equipment, training, receiving, storage and shipping	Yes

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HACCP Plan Summary

Plan Name: Raw frozen chicken (broiler) parts

CCP (Process Step)	Hazard(s)	Critical Limits	Monitoring Procedures	Corrective Actions	Verification Procedures	HACCP Records
Receiving/unload ing birds CCP: 1	B: Pathogens	Air temperature 16C max Waiting time 2h max Max. 6 birds/cage Fasting for 4h	Air temperature recorded continually Arrival time fro each lot of birds Number of birds in every cage Fasting	If air temperature is too high, turn on water spray If birds have been waiting for 2 h put them on-line immediately If more than 6 birds per cage, reject and evaluate the case If fasting too short, separate the cages and evaluate the situation	Temperature verified every 2 h Waiting times verified for each shift Number of birds per cage verified for every incoming lot Fasting records verified for every incoming lot	Receiving Temperature Log - automatic Waiting Time Log for Birds Upon Arrival Birds Numbers Log per Cage Fasting Time Log
Evisceration CCP: 2	B: Pathogens	Sanitize instruments in 80°C hot water for 2 minutes Max. 2% of carcasses with visible intestinal contamination Min. 10 ppm free chlorine in wash water Min. 1 liter of water per carcass	Water temperature recorded continually Each carcass inspected for intestinal contamination Chlorine concentration recorded continually Water flow recorded continually	Increase water temperature if it drops below 80°C Remove contaminated carcasses from line; if more than 2% are visibly contaminated adjust eviscerating machine or slow line speed if necessary Increase chlorine level if it drops below 10 ppm Increase water flow if it is below 1 liter	All monitoring records are verified every hour	Water Temperature Log - automatic recording Water Flow Log - automatic recording Chlorine concentration - automatic recording Instestinal Contamination Log

HACCP Plan Summary

Plan Name: Raw frozen chicken (broiler) parts

CCP (Process Step)	Hazard(s)	Critical Limits	Monitoring Procedures	Corrective Actions	Verification Procedures	HACCP Records
Washing CCP: 3	B: Pathogens	Water temperature max. 16 °C Min. 3 liters of water per carcass Min. 15 ppm free chlorine	Continuous recording of all three variables	Water temperature is too high Increase water flow if it is below 3 liters per carcass Adjust chlorine concentration if there are deviations	Water temperature and chlorine concentration are verified every 2 h Water flow verified every shift	Water Temperature Log - automatic Water Flow Log - automatic Water Flow Log - automatic
Chilling CCP: 4	B: Pathogens	Water temperature max. 4 °C Min. 3 liters of water per carcass Min. 15 ppm free chlorine		If the water temperature is too high, add ice to the tank Increase water flow if it is too low Adjust concentration of chlorine	Water temperature verified every 2 h Water flow verified every shift Chlorine concentration verified every hour	Water Temperature Log - automatic Water Flow Log - automatic Chlorine Concentration Log - automatic
Freezing and storage CCP: 5	B: Pathogens	Temperature 40 °C	Temperature monitored continuously	Adjust freezer if temperature is above 40°C	Verify temperature at each shift	Freezer Temperature Log

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Establishment X: Freezing Log

Product	Lot #	Date & Time Cook Finished	Date & Time Chill Started	Chilling Unit	Recorder (°F)		Manual (°F)	Hold for corrective action (Check if Yes)	Monitor By
					Chiller Temp.	Internal Product Temp.	Internal Product Temp.		

Critical Limit: _____

Pre-shipment Review by (Management): _____

Date/Time: _____