



Example Hazard Analysis and HACCP Plan

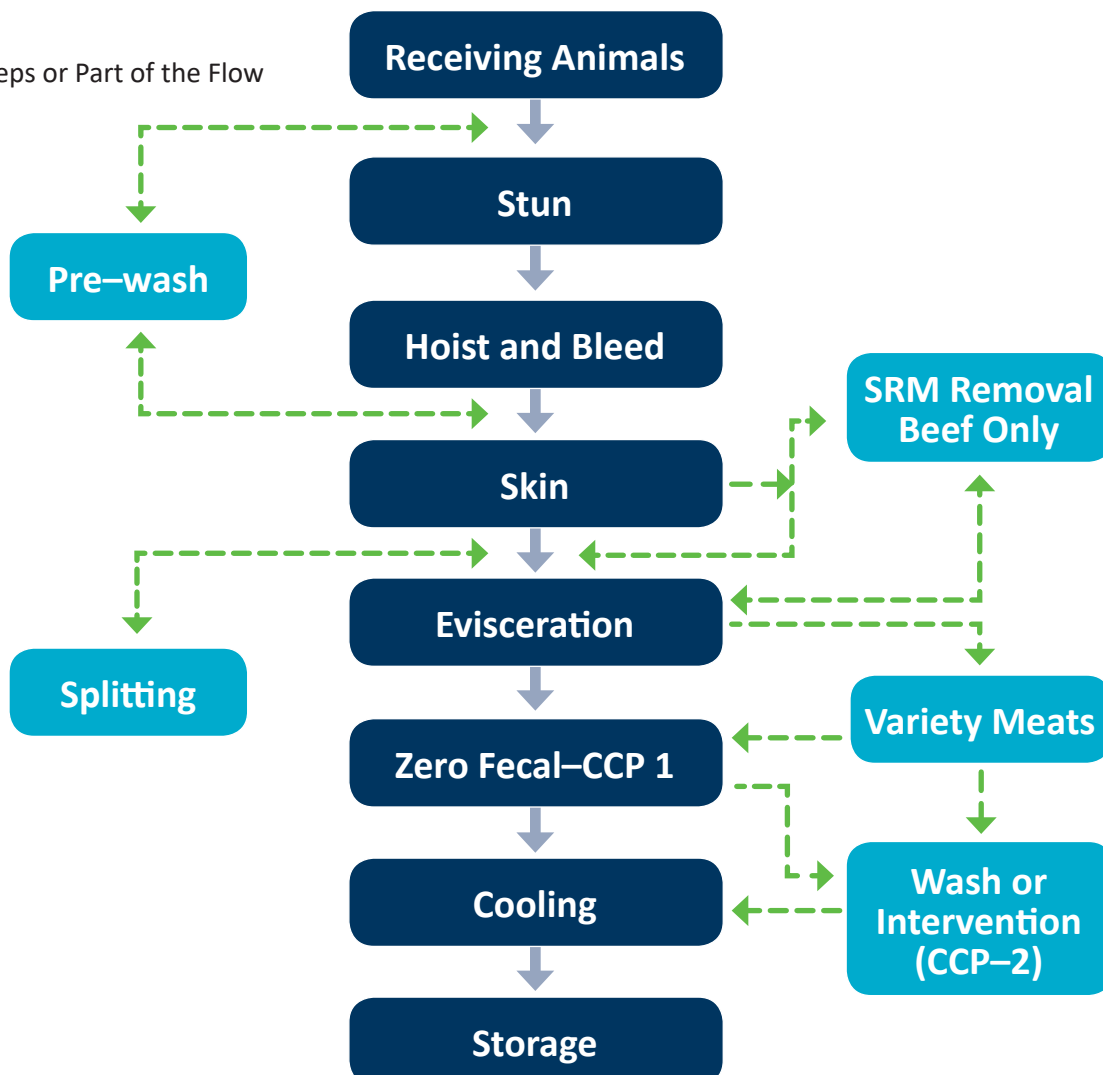
How To Use This Document

The diagram and tables in this document illustrate the slaughter process, slaughter Hazard Analysis, and slaughter Hazard Analysis and Critical Control Points (HACCP) Plan design. Use these examples as references when conducting your own establishment's slaughter Hazard Analysis and developing a slaughter HACCP plan. Exact procedures and methods may vary from one establishment to another, as well as chart layouts or designs, but the level of detail in a Hazard Analysis and HACCP Plan should compare with what is found in the following examples.

Slaughter Flow Diagram

FLOW CHART KEY

GREEN = Optional Steps or Part of the Flow



Slaughter Hazard Analysis Example

Processing Step	Hazard Biological (B), Physical (P), or Chemical (C)	Is the Hazard Reasonably Likely to Occur	Basis	If yes in column 3, what measures could be applied to prevent, eliminate, or reduce the hazard to an acceptable level	CCP
Receiving Animals	B=E-coli 0157:H7, STEC, Salmonella	Yes	Dirty animals are likely to have fecal contamination, raw meat is a known source of bacteria	Later CCP to verify that no visible contamination has occurred on the meat. Pre-skinning wash may be used to reduce the risk of carcass contamination if animal is presented for slaughter with a large amount of feces present.	See CCP-1
	P=Foreign Materials, (needles, hardware, etc.)	No	Visual inspection of both the live animal and carcass to verify no foreign materials are present		
	C=Antibiotic residue	No	Signed letter from producer certifying all withdrawal times have been met. Inspection will conduct random KIS test to verify.		
Pre-Wash	B= E-coli, STEC, Salmonella	Yes	Dirty animals are likely to have fecal contamination, raw meat is a known source of bacteria. Animals deemed excessively dirty can be washed or trimmed to reduce the amount of mud and debris that may be reintroduced to the carcass during cutting.	Later CCP to verify that no visible contamination has occurred on the meat.	
	P=none				
	C=none				
Stun	B=none				
	P=bone or bullet fragments	No	If firearms are used the head will be discarded. If a captive bolt5 is used the head will be inspected for bone fragments before moving on to the next step.		
	C=none				
Hoist and bleed	B=Introduction of above listed bacteria into carcass	No	SOP for bleeding process	Later CCP to verify that no visible contamination has occurred on the meat.	
	P=None				
	C=none				

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Skin	B=Introduction of above listed bacteria into carcass	No	SOP for slaughter processing, Careful employee practices included in sanitary dressing procedures or operational sanitation procedures.	Later CCP to verify that no visible contamination has occurred on the meat.	
	P=none Unless Firearm is used	No	Head and cheek meat are disposed of (9 CFR 310.18 (b))		
	C=None				
Evisceration	B=Introduction of above listed bacteria into carcass	No	Broken bowels or intestines may be cause of contamination; Minimize contamination and cross-contamination through sanitary dressing procedures, SOP; Sanitation SOPs.	Later CCP to verify that no visible contamination has occurred on the meat.	See CCP-1
	B=Prion (cattle)	No	BSE SRM procedures		
	P=none				
	C=none				
Splitting (optional)	B= Introduction of above listed bacteria into carcass	No	BSE SRM procedures		
	B=Prion (cattle)	No	SSOP (be sure that the written SSOP accounts for monitoring equipment for breakages as part of the pe-op or operational sanitation checks)		
	C=none				
Zero Fecal CCP-1	B=Presence or contamination of ingesta, fecal, or milk	Yes	Pathogens are known to be present on beef carcasses and are also reasonably likely to be present on head meat and variety meats. Removal of visible contamination is required by 9 CFR 310.18(a). CCP-1	The visual inspection of the carcass to verify zero fecal, milk, or ingesta is conducted here;	CCP-1
	P=none				
	C=none				

Processing Step	Hazard Biological (B), Physical (P), or Chemical (C)	Is the Hazard Reasonably Likely to Occur	Basis	If yes in column 3, what measures could be applied to prevent, eliminate, or reduce the hazard to an acceptable level	CCP
Wash or Intervention	B=Presence	Yes/No (presence)	Pathogens are known to be present on beef carcasses and are also reasonably likely to be present on head meat and variety meats.		CCP-2 (cattle)
	Or Growth	No (growth)	Carcass intervention spray reduces likelihood of pathogens remaining on carcass to an acceptable level and prevents pathogen growth during transfer of carcass to chiller.		
	P=none				
	C=none				
Cooling	B=Pathogen Growth	No	Storage of carcass less than or equal to 41°F in accordance with SOP for final product storage, makes growth of pathogens (if present) unlikely.		
	P=none				
	C=none				
Storage	B=bacterial growth	No	SOP for cold storage		
	P=none				
	C=none				
SRM removal (cattle)	B=prions	No	SRM SOP followed		
	P=none				
	C=none				
Variety Meats	B= Presence or contamination of ingesta, fecal, or milk	No	CCP-1	Variety meats will also be monitored for contamination.	CCP-1
	B=Growth of pathogens	No	Cold Storage SOP	Variety meats will be placed in cooler in lugs after separation from the carcass or hung on the carcass to cool.	

Slaughter HACCP Plan Example

CCP #	CCP #1: E-coli 0157:H7, STEC, Salmonella	CCP #2: E-coli 0157:H7, STEC, Salmonella
CCP #	CCP #1: E-coli 0157:H7, STEC, Salmonella	CCP #2: E-coli 0157:H7, STEC, Salmonella
Critical Limits	Zero visible fecal material, ingesta, or milk present	Hot water wash (temp X, duration X, pressure X); Lactic acid spray (concentration X, duration X)
Monitoring Procedures & Frequency	Visual inspection of each carcass ½ or ¼, head, head or cheek meat, or variety meat; Record kept for every beef, every 5 hogs; Initial validation conducted for 13 consecutive days of slaughter - every carcass recorded to support outlined procedures	Hot water wash or lactic acid spray applied to each carcass ½ or ¼, head, head or cheek meat, or variety meat; Record kept for every 3 beef, every 5 hogs; Initial validation conducted for 13 consecutive days of slaughter - every carcass recorded to support outline procedures
HACCP Records	Slaughter Log	Slaughter Wash Log; Slaughter Acid Spray log; Acid Mixing Log
Verification Procedures and Frequency	Establishment owner/designee reviews Slaughter Log, Corrective Action Log 1x/week; Establishment owner/designee observes monitoring of trim zero tolerance at least 1x/month	Establishment owner/designee reviews Slaughter Wash Log, Slaughter Acid Spray Log, Acid Mixing Log, Corrective Action Log 1x/week; Establishment owner/designee observes monitoring of wash parameters at least 1x/month
Corrective Actions	If deviation from critical limit occurs, establishment owner/designee follows corrective action protocol per 9 CFR 417.3: 1) Cause of deviation identified and eliminated; 2) CCP under control after corrective action taken; 3) Measures to prevent recurrence established; 4) No product injurious to health or otherwise adulterated due to deviation permitted to enter commerce	If deviation from critical limit occurs, establishment owner/designee follows corrective action protocol per 9 CFR 417.3: 1) Cause of deviation identified and eliminated; 2) CCP under control after corrective action taken; 3) Measures to prevent recurrence established; 4) No product injurious to health or otherwise adulterated due to deviation permitted to enter commerce

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