

Raw Ground Process Example Product Description

Product Name: Ground Beef
Ground pork

Intended Use of Product: To be fully cooked by end-user.

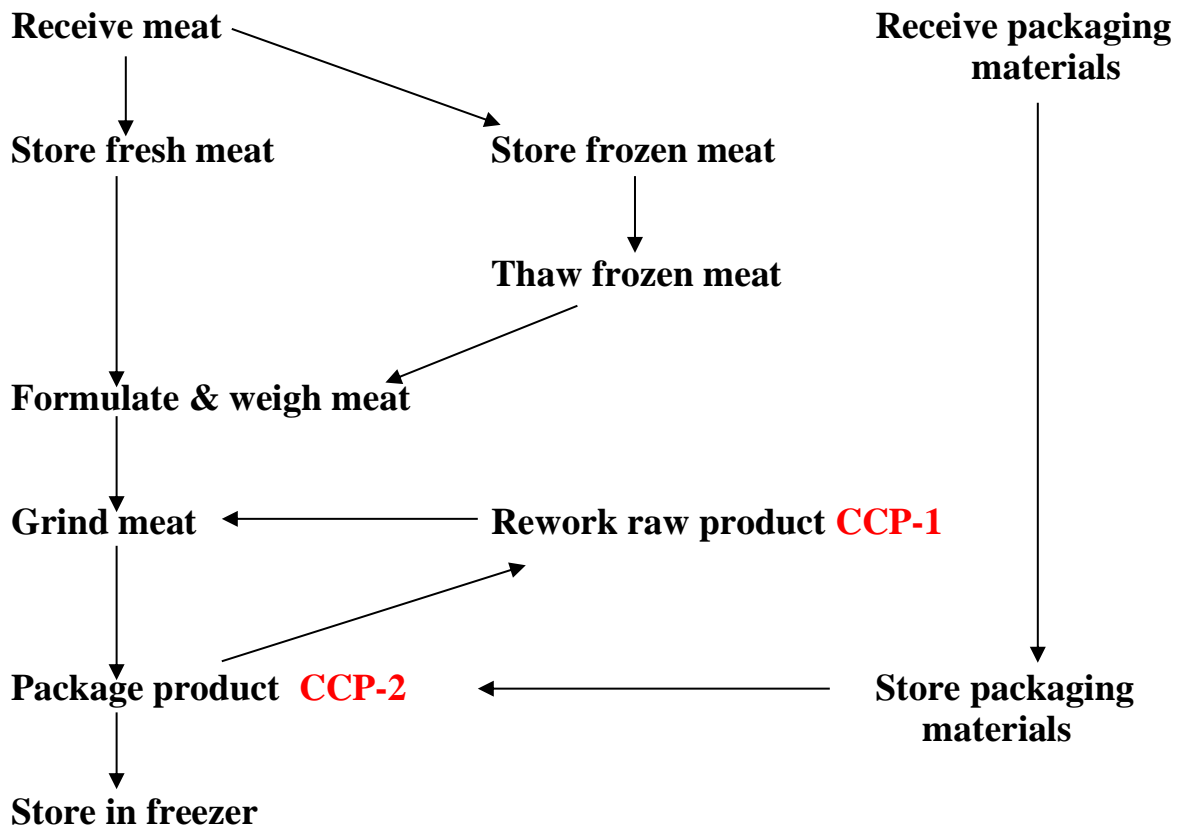
Type of packaging: Wax coated, freezer paper, and vacuum packaging.

Length of Shelf Life: Paper – 4 days fresh, 6 months frozen
Vacuum package – 14 days fresh, 6 months frozen

Where will it be sold? Retail sales to general public. Wholesale to restaurants.

Labelling Instructions: Safe handling instruction label, Keep Frozen, or Keep Refrigerated

Raw Ground Process Example Flow Chart



HACCP Form A

Process Step	Potential Hazards	Reasonably likely to occur?	Justification for decision made in previous column	Preventive Measures	CCP?
Receive meat	B ₁ - <i>E. coli</i> O157:H7 in beef	No	Hazard not likely to occur, based upon records of suppliers validated CCPs (interventions) regarding organic carcass washes (letters of guarantee) and test results/certificates of analysis (GMP 1)		
	B ₂ -growth-time post kill	No	Not likely to occur, based upon receiving records. (GMP 2)		
	B ₃ - SRM materials in beef (BSE)	No	Hazard not likely to occur, based upon supplier letter of guarantee, that only boneless product is received from cattle less than 30 months of age.		
	P ₁ - needles, shot	No	Not likely to occur, based upon supplier letter of guarantee, and no reported incidence of these hazards has occurred between January 1, 1996 to July 26, 2004.		
	C - none identified				
Store fresh meat	B ₄ - pathogen growth	No	Rotation records (GMP 3) indicate hazard not likely to occur.		
	C-none identified				
	P- none identified				
Store frozen meat	B - none identified P - none identified C - none identified				
Thaw frozen meat	B ₅ - pathogen growth	Yes	Product temperature increase into danger zone is likely to occur during thawing process.	Maximum water temperature of 70°F while thawing.	Refer to CCP-2 below
Formulate & weigh meat	B ₆ -pathogen growth	Yes	Product temperature increase is likely to occur.	Maintain raw meat temperature at 45°F or below during weighing. (See Minimum, optimal and maximum growth reference information in ARS Pathogen Modeling Program)	Refer to CCP-2 below
	B ₇ -pathogen contamination	No	Not likely to occur, based upon SSOP records.		
	P ₂ -aluminum clips	No	Not likely to occur, based upon plant history		
	C-none identified				
Grind meat	B ₈ - pathogen growth	Yes	Meat temperature increase is likely during grinding.	Maintain raw meat temperature	Refer to

	B ₉ - pathogen contamination P ₃ - bone chips C ₁ - cleaners & sanitizers	No No No	Not likely to occur, based upon SSOP records Not likely to occur, based upon plant history and re-inspection records (GMP4). Not likely to occur, based upon SSOP records	at 45°F or below during grinding. (See Minimum, optimal and maximum growth reference information in ARS Pathogen Modeling Program)	CCP-2 below
Rework product	B ₁₀ -pathogen growth B ₁₁ -pathogen contamination C-none identified P-none identified	Yes No	Additional handling could cause temperature increase in product. Not likely to occur, based upon SSOP records	Maintain reworked meat temperature at 45°F, reworked meat not held overnight. (See Minimum, optimal and maximum growth reference information in ARS Pathogen Modeling Program)	CCP-1
Receive Packaging Materials	B-none identified C-none identified P-none identified				
Package product	B ₁₂ – pathogen growth B ₁₃ - pathogen contamination	Yes No	Additional handling during packaging could cause temperature increase in product. Not likely to occur, based upon SSOP records.		CCP-2
Freezer Storage	B – None identified P – None identified C – None identified				

Literature Cited

ARS Pathogen Modeling Program (PMP) 7.0 is accessible at <http://www.arserrc.gov/mfs/PATHOGEN.HTM>

Minimum, optimum and maximum growth temperatures of selected pathogens from PMP 7.0 can be access at:

www.ag.ohio-state.edu/~meatsci/ARSTemperatureGuide03.doc

Reassessed 7/18/07 _____

Raw Ground Process Example HACCP Form B

Process Step/CCP	Critical Limits	Monitoring Procedures				Corrective Action
		What	How	Frequency	Who	
CCP-1 Rework	Reworked meat temperature not to exceed 45°F, not to be held overnight.	Reworked meat temperature and time	Digital thermometer and rotation records	Every 2 hours during processing.	Grinder operator, supervisor or trained designee	Action will be taken to ensure: 1. The cause of the deviation is identified and eliminated; 2. The CCP will be under control after the corrective action is taken; 3. Measures to prevent recurrence are established, and 4. No product that is injurious to health or otherwise adulterated as a result of the deviation enters commerce.
CCP-2 Grind meat	Raw ground beef temperature not to exceed 45°F	Ground beef internal temperature	Calibrated digital thermometer, manually inserted into center of container of ground meat.	3 readings per lot: at beginning, middle and end of lot	Grinder operator, supervisor or trained designee	Action will be taken to ensure: 1. The cause of the deviation is identified and eliminated; 2. The CCP will be under control after the corrective action is taken; 3. Measures to prevent recurrence are established, & 4. No product that is injurious to health or otherwise adulterated as a result of the deviation enters commerce.

**Raw Ground Process Example
HACCP Form C**

Process Step/CCP	Verification Activities	Record keeping Activities
CCP-1 Rework	Calibrate thermometers –weekly by trained designee, method* Daily verification of monitoring & corrective action records by manager, supervisor or trained designee. Check the checker weekly by manager, supervisor or trained designee. Reassess plan – annually by HACCP team. Product sampling (<i>E. coli</i> for beef) – monthly.	Monitoring & Verification (meat temperatures) records – Form 101 Corrective action records – Form 101 Calibration records – Form 103 Microbial sampling records – Form 104
CCP-2 Grind meat	Calibrate thermometers – weekly by trained designee Daily verification of monitoring & corrective action records by manager, supervisor or trained designee. Check the checker weekly by manager, supervisor or trained designee. Reassess plan – annually by HACCP team. Product sampling – monthly.	Monitoring & Verification (rework temperature and rotation) records – Form 101 Corrective action records – Form 101 Calibration records – Form 103 Microbial sampling records – Form 104

*Calibration method: