

Instructor's Agenda: Thermal Processing for Meat and Poultry Products Training Course

Day 1

Time	Topic	Format	Items Needed	Purpose	Performance Objectives
1 hour	Registration and welcome	Introductions			
2 hours	Module 1 - Course Overview and Introduction to Thermal Processing	Lecture Movie	Intro to a Cannery movie	Provide a basic overview of a conventional canning establishment.	Can name key functions in a canning establishment.
2 hours	Module 2 - Microbiology of Thermally Processed Food	PowerPoint presentation		Present major concepts related to thermal processing and recontamination.	Can identify factors affecting growth and thermal destruction of microorganisms and the principle causes of spoilage.
1 hour	Module 3 - Principles of Food Plant Sanitation	PowerPoint presentation		Present the sources of microbial contamination and how to control them.	Can list sources of contamination and develop strategies to control them.
1hour	Module 4 - Canning Regulations an Overview	PowerPoint presentation		Provide an understanding of key sections of FSIS canning regulations and Directive 7530.2.	Become familiar with the main sections of the regulations leading to effective use.
1 hour	Module 5 - Processing Authorities	PowerPoint presentation		Understand the role of process authorities.	Understand the policy of FSIS and how to work with processing authorities.

Day 2

Time	Topic	Format	Items Needed	Purpose	Performance Objectives
2 hours	Module 6 - Principles of Thermal Processing	PowerPoint presentation		Provide concepts used to establish thermal processes.	Understand what techniques are involved in process establishment and temperature distribution.
2 hours	Module 7 - Process Room Instrumentation, Equipment, and Operation	PowerPoint presentation		Provide basic components and function of process room instrumentation and equipment.	Can assess compliance of equipment and monitor processes for process room instrumentation.
2 hours	Module 8 - Still Retorts: Processing in Steam	PowerPoint presentation		Provide an understanding of the components and operation of still retort equipment using pressure processing in steam.	Can assess compliance of still retort equipment using pressure processing in steam and perform inspections.
1 hour	Module 9 - Steam, Batch, Agitating Retorts	PowerPoint presentation		Provide an understanding of components and operation of still retort equipment using processing with overpressure.	Can assess compliance of still retort equipment using processing with overpressure for FSIS requirements and perform inspections.
1 hour	Module 10 - Continuous Rotary (Agitating) Retorts	PowerPoint presentation		Provide an understanding of components and operation of equipment used for agitating retorts with continuous container handling.	Can assess compliance of agitating retort equipment with continuous container handling and perform inspections.

Day 3

Time	Topic	Format	Items Needed	Purpose	Performance Objectives
1.5 hours	Module 11 - Retorts— Processing With Overpressure	PowerPoint presentation		Provide an understanding of components and operation of equipment used for agitating retorts with discontinuous container handling.	Can assess compliance of agitating retort equipment with discontinuous container handling and perform inspections.
1.5 hours	Module 12 - Hydrostatic Retorts	PowerPoint presentation		Provide an understanding of components and operation of equipment used for hydrostatic retorts.	Can assess compliance of hydrostatic retort equipment and perform inspections.
1.5 hours	Module 13 - Acidified Foods	PowerPoint presentation		Provide concepts on acidification and methods to monitor and control.	Can assess acidification procedures and determine if controlled and documented.
1.5 hours	Module 14 - Aseptic Processing and Packaging Systems	PowerPoint presentation		Provide major methods for aseptic processing and cover major packaging systems.	Understands basic concepts and is prepared for learning more advanced materials.
1.5 hours	Module 15 - Records for Product Protection	PowerPoint presentation		Provide concepts in good process documentation	Can identify good record keeping and determine adherence to regulations
15 minutes	Quiz 1 (covering all the material covered – Via Microsoft Forms)				

Day 4

Time	Topic	Format	Items Needed	Purpose	Performance Objectives
3 hours	Module 16 - Closures for Metal Containers	PowerPoint presentation/Seam Video	Seam Video	Provide knowledge on the construction of the double seam and techniques to evaluate double seams	Can evaluate double seam examinations and determine whether recorded results are complete and within specification.
1.50 hours	Module 17 - Closures for Glass Containers	PowerPoint presentation		Provide knowledge of common closures and techniques to evaluate closures for glass containers.	Can evaluate glass closure examinations and determine whether recorded results are complete and within specification.
1.50 hours	Module 18 - Flexible / Semi-Rigid Containers	PowerPoint presentation		Provide knowledge of common closures and techniques to evaluate closures for flexible / semi-rigid containers.	Can evaluate flexible / semi-rigid closure examinations and determine whether recorded results are complete and within specification.
1 hour	Module 19 - Container Handling	PowerPoint presentation		Provide knowledge of good and bad practices for container handling.	Can assess container handling and identify poor practices
4.5 hours	Module 20 - Process Deviations	PowerPoint presentation		Provide major types of process deviations and acceptable methods for handling.	Can determine if firms handle process deviations properly.

Day 5

Time	Topic	Format	Items Needed	Purpose	Performance Objectives
Continued from day 4	Module 20 - Process Deviations	PowerPoint presentation		Provide major types of process deviations and acceptable methods for handling.	Can determine if firms handle process deviations properly.
1 hour	Module 21 - Canning HAV and HACCP Plan Verification	PowerPoint presentation		Activities by the Consumer Safety Inspector (CSI) Sample HACCP Plan (included in manual)	Provide techniques in verification of a canning HACCP plan. Can verify a HACCP Plan for a canning establishment.
3.5 hours	Module 22 - Investigation of Canned Food Spoilage Incidents	PowerPoint presentation with open discussion		Learn techniques for conducting spoilage investigations of canned products.	Can develop a strategy for a spoilage investigation.
1 hour	Module 23 – Process Verification and assessment	PowerPoint presentation	FSIS Checklists	Provide methods for monitoring processes and assessing canneries.	Can use process monitoring methods to successfully monitor processes at canning establishments and perform assessments.
1 hour	Module 24 - Electronic Records and Signatures	PowerPoint presentation		Provide concepts in use, storage, and security of automated records.	Learn the baseline concepts of electronic records and signatures to prepare for
15 minutes	Quiz 2 (covering all the material covered – Via Microsoft Forms)				
1 hour	OJT Discussion	Discussion		Go over the OJT portion	Understand what is required
1 hour	Course Evaluation	Discussion		Obtain feedback on course for improving	Develop a list of needs for improving the course.

NOTES: At the end of each module, the students will have to finish a five (5) question exercise in Microsoft Forms. Quiz 1 and 2 will be done in Microsoft Forms, The course will be one week of virtual training (8 hours per day) and one week of On the Job Training (OJT)