U.S. Department of Agriculture

Food Safety and Inspection Service

CANNED FOOD RETORT AUDIT SYSTEM

FSIS FORM 7500-3 (11/18/1999)

U.S. DEPARTMENT OF AGRICULTURE FOOD SAFETY AND INSPECTION SERVICE	ESTABLISHMENT NAME		
CANNED FOOD RETORT	ESTABLISHMENT NO.	ESTABLISHMENT LOCATION	
(9 CFR 318.305 and 381.305)	NAME OF AUDITOR	DATE	
INSTRUCTIONS: Report all pipe sizes as Inside Dia	meter Cross-section area = 3.14	r^2 where ($r = 1/2$ Diameter)	
	1.0 RETORT DESCRIPTION		
1.1 Total Number of Retorts	1.2 Retort Type (e.g., still vertical)	1.3 Type of Heating Medium STEAM WATER STEAM-AIR	
1.4 List dimensions	1.5 For vertical retorts there are bottom crate supports. YES NO N/A	1.6 Baffle plates are absent in the retort bottom. YES NO N/A	
1.7 Are there any protrusions inside the retort or on the retort door casing which could damage containers during loading/unloading of crates or baskets?			
NO YES (describe):			
2.0 TEMPERATURE INDICA	TING DEVICE (Mercury - in - glass or other Ag	gency approved device)	
2.1 Number of Devices	2.2 Easily readible to 1 degree F. YES NO (describe):		
2.3 Number of Degrees F. per inch of scale	2.4 Date last tested against standard	2.5 Standard used	
2.6 Name of analyst	Title	2.7 Test method	
2.8 If not a mercury thermometer (e.g., a resistance	ce device or thermocouple), what kind and wh	en did FSIS approve it?	
2.9 The device is marked with date of last test.	2.10 The mercury column is undivided.		
YES NO	YES NO	N/A	
2.11 The device(s) is located where it is easy to read accurately. YES NO (explain):			
		<u> </u>	
EXTERNAL WELL		Location on retort.	
2.13 Diameter of opening to external well	2.14 Bleeder Size. *		
2.15 Bleeder emits steam continuously during processing. *			
2.16 If a bleeder muffler is used, cite evidence the	establishment has that it does not restrict fre	e flow. *	
2.17 Mercury or other temperature indicating device is used as the reference instrument.			
YES NO (explain): FSIS FORM 7500-3 (11/18/1999) NOTE: If more space	is needed, please use the Continuation Sheet	* Answer only for steam or steam-air retorts! 2	

3.0 TEMPERATURE RECORDER				
3.1 Type of temperature recorder 3.2 When calibrated, it is accurate to +/- 1 F degree.				
	YES			
	NO (explain):			
3.3 Difference between recorder and mercury or ten	pperature indicating device during process	3.4 If 3.3 was YES, which device is higher?		
timing.				
NO YES (how much?)		INDICATOR		
3.5 The means of preventing unauthorized adjustme	nts of recorder is:	3.6. The chart specifications are: (Degrees F/		
SIGN NOTICE		sterilizing temperature.)		
LOCK OTHER (explain):				
3.7 The correct chart specified for the recorder is	3.8 The chart drive timing mechanism is	accurate.		
being used.	YES			
YES NO	NO (explain):			
3.9 If a multipoint recorder, readings are 1 minute a	5.10 If a multipoint reco	order, the timing mechanism is accurate.		
YES	YES			
NO (list):	NO (explain):			
3.11 If other than chart type <i>(e.g., Digital)</i> , approved by FSIS on:	3.12 The recorder is combined with a steam controller.	3.13 If an air-operated temperature controller, air is filtered.		
N/A	YES NO	YES NO		
3.14 The recorder sensor is in the:		Location on retort.		
RETORT SHELL				
EXTERNAL WELL	I	1		
3 15 Bleeder size <i>(if using an ext_well)</i>	3.16 Bleeder(s) emits steam continuously	/ during process.*		
	YES			
N/A	NO (explain):			
3.17 If a bleeder muffler is used, cite evidence the e	stablishment has that it does not restrict fl	ow.		
3.18 If recorder is air-operated, the unit has an adec	uate filter system to ensure a supply of cle	an, dry air.		
YES				
NO (explain):				
4.0 AIR OR WATER LINES CONNECTED TO RETORTS 4.1 Is air for overpressure or cold water used for cooling?				
AIR WATER N/A				
4.2 List valve type(s): AIR LINE	WATER LINE			
		OTHER		
		(explain):		
DALL	DALL			
	O ALITOMATIC OTFANA CONTROL LES			
5.1 List valve type.	5.2 List valve size.	5.3 The controller actuated by:		
		* Answer only for steam or steam-air retorts! 3		

6.0 STEAM INLET(S)			
6.1 Steam inlet(s) is located opposite the vent. *		6.2 Diameter of smallest restriction in steam	
YES		inlet lines during venting *	
7	.0 STEAM SPREADERS (If used or require	ed)	
7.1 Describe the shape. (Sketch on 13.0, if needed	ed.)	7.2 List length / pipe diameter	
7.3 If the horizontal retort is longer than 30 ft., th	ere are 2 steam inlets.	7.4 Location of holes	
YES			
NO (how many):			
7.5 Holes are full length of spreader on horizontal	retorts.	7.6 Total number of holes	
YES			
NO (list):			
7.7 Diameter of holes	7.8 Holes are clearly open.		
	YES		
	NO (explain):		
8.1 Number of Pleaders	0 Bleeders * (Except thermometer bleede	rs)	
6.1 Number of bleeders	0.2 5128(5)	6.5 Locations	
8.4. Distance apart on horizontal retort(s)	8.5. Bleeders are opposite steam inlets		
	YES		
	NO (where)?		
8.6 Observable during retorting.	<u> </u>		
VES			
NO (explain):			
8.7 Is fully open during the entire process, includi	ng the come-up time.		
VES			
NO (explain):			
8.8 If a muffler is used, cite evidence the establishment has that it does not restrict free flow.			
8.9 Describe the maintenance or replacement schedule for bleeder mufflers.			
8.10 On crateless retorts, list the size of the 8.11 Crateless bleeder operation is part of the venting schedule.			
DOTTOM DIEEders.			
	YES NO (explain):		

		9.0 VE	NTS *		
9.1 Number of vents	9.2 Vent Diameter	9.3 Vent Length	9.4 Location of vent(s) on retort (e.g., top center)	9.5 Distance between vents (horizontal retorts)	
9.6 Vent valve type.				9.7 Valve size(s)	
GATE PLU		list):			
GLOBE					
9.8 Vent valve(s) is fully	open during venting.				
	acita ataam inlat/a)		0.10. The west manifold yel		
9.9 Vent(s) located oppo	Site steam met(s).				
YES					
NO (where):					
9.11 Smallest vent man valve)	ifold diameter (includes	9.12 Number of con	necting vent pipes	9.13 Diameter of connecting vent pipes	
0.11.0	<u> </u>	0.15.0		0.16 Manifold area is acrual to an	
9.14 Cross-sectional are pipes.	a of all connecting vent	9.15 Cross-sectional manifold restric	area of smallest vent	greater than connecting vent area.	
				YES NO N/A	
9.17 The vent, manifold	or manifold header breaks	s to the atmosphere.		9.18 Smallest manifold header	
				diameter <i>(if used)</i>	
YES (where):					
NO					
9.19 Cross-sectional are	a of manifold header	9.20 Diameter / No.	of pipes connected to the	9.21 What is the maximum no. of retorts venting at the same time?	
			, . p.p.co,		
		0.00 American	er en ifeld her de v2		
the manifold area.	equal to or greater than	9.23 Any valves on	mannoid header?	comply with one of the examples in the USDA regulations.	
YES NO	N/A	YES	NO N/A	YES (Skip NO N/A	
9.25 If not, arrangements and method comply with another reference.					
YES (list reference name and date):					
9.26 If no to previous two questions, the establishment has heat distribution data or other documentation from an equipment manufacturer or					
designated authority on file.					
YES (list reference name and date):					
NO					
9.27 If vent mufflers are used, list type and describe design.					
9.28 List reference and date of proof that vent muffler permits 9.29 Describe the maintenance or replacement schedule for vent					
proper venting.			mumers.		

10.0	DIVIDER PLATES AND RETORT BASKET
10.1 Divider plates are used.	10.2 Uniformly perforated
YES NO (If no, go to 10.6)	YES NO
10.3 At least 1" holes on 2" centers or equivalent (% open area).	10.4 Establishment uses only one plate to separate each layer of containers.
YES NO (what):	YES NO
 10.5 List reference and date of documentation on file at establishment that permits venting using divider plates. 	10.6 Retort basket bottoms are uniformly perforated YES NO
10.7 Basket bottoms have at least 1" holes on 2" centers or equivalent (% open area). YES NO (what):	10.8 Except when divider plates are used as the retort basket bottom, does the establisment place a divider plate on the basket bottom? YES (explain): NO
11.0.00	
11.1 What is the size of the bottom condensate bleeder? *	11.2 Condensate bleeder operation is easily observed.*
11.3 The retort has a recording tachometer. YES NO N/A 11.5 Frequency the tachometer is checked against a stopwatch.	 11.4 Means of preventing unauthorized adjustments of reel or conveyor speed SIGN OTHER (<i>list</i>): LOCK 11.6 List date and reference of letter, report, etc., from an equipment supplier or processing authority which documents the retort has adequate heat distribution.
12.0 CON	SIDERATIONS FOR WATER RETORT SYSTEMS
12.1 The means for checking water level is by: GAUGE PETCOCK VALVE ELECTRIC SENSOR OTHER (List): SIGHT GLASS	12.2 Water is circulated by: AIR RECIRCULATION PUMP OTHER (list):
12.3 The recirculation pump has a pilot light or other device to indicate proper function. YES NO N/A 12.5 Size of water return holes	12.4 For recirculation systems, the water return to the pump is through a suction port or manifold at retort bottom and discharged through a top return. YES NO 12.6 No. of water 12.7 Distance apart 12.8 Screens are in place on recircu-
	return holes lation pump suction outlets.
SIGNATURE OF AUDITOR	DATE