

Outbreak ID	Year	Reason why the environmental assessment was conducted	Number of environmental assessments	Are any non-food service establishments part of outbreak?
6108	2015	outbreak investigation at a restaurant.	1	No
6195	2015	complaint received, epidemiologic & laboratory results	1	No
6215	2015	to assess food handling, safety and hygiene and to prevent spread via contaminated surfaces	1	No
6226	2015	illness reports	1	No
6279	2015	epi evidence, association of illness with meal	1	No
6347	2016	a complaint was received that approximately 42 out of 60 people that attended a catered graduation party became ill with vomiting and/or diarrhea.	1	No

7388 2016	assessment now part of routine investigation.	1	No
8439 2016	confirmed outbreak	1	No
8455 2016	conditions at time of inspection were not satisfactory	1	No
8477 2016	two separate reports of similar illness with consumption of a common food.	1	No
8481 2016	3 people from separate households with similar illness profile.	1	No
8489 2016	customer complaint. 7 people ill from 4 households with similar symptoms.	1	No
8508 2016	two separate complaints received with similar illnesses after eating at this establishment.	1	No
8551 2016	reports of illness among a large group (50) who ate a catered lunch from this food establishment	1	No

9547 2016	4 ill customer complains with primarily diarrhea (some vomiting); illness similar to c. perfringens.	1	No
9548 2016	two ill with similar symptoms after eating at this establishment with no other common exposures.	1	No
10623 2017	customer complaint received 4/8 ill. 4 separate households, only common exposure.	1	No
10645 2017	6 people from 2 different households reported similar illness after a common meal. all ill had a common food.	1	No
10652 2017	received two separate complaints of similar illness following a meal at the same food establishment	1	No
11675 2017	a group of 5 people all became ill after eating at a local restaurant. it was the only common exposure amongst the 5 individuals.	1	No

12750 2017	a lunchtime catered meal was provided to a private group, with multiple people reporting illness later on that evening.	1	No
12759 2017	19 people ill after eating at a catered wedding reception with similar symptoms, incubation, and duration.	1	Yes
12760 2017	20 ill after wedding reception with similar symptoms, incubation, and duration.	1	Yes
13936 2018	complaint received of 5 all after meal on 3/22/18	1	No
14208 2018	complaints of illness received	1	No
14230 2018	meets the state foodborne illness outbreak definition	1	No
14268 2018	multiple illnesses after an employee appreciation event.	1	No

14374 2018	two patrons from separate houses became ill after eating at the restaurant	1	No
14403 2018	meets the state foodborne illness outbreak definition	1	No
14404 2018	meets the state foodborne illness outbreak definition	1	No
14518 2018	foodborne outbreak after a meal at the mexican style restaurant. a party of 13 ate together and 3 became ill with diarrhea and abdominal cramps within 12 hours.	1	No
14654 2018	received multiple complaints of illness after eating at a common food establishment	1	No
14821 2018	large number of attendees who attended a birthday party reported to be ill around the same time frame as the event with similar symptoms.	1	No
14670 2018	received notification of multiple illnesses after consuming a common meal	2	No

How many non-food service establishments?	Was the agent suspected or confirmed?	Part 1 comments	Date the establishment was identified for an environmental assessment	Date of the first contact with the establishment
	Confirmed		5/11/2015	5/11/2015
	Confirmed		6/22/2015	6/22/2015
	Suspected	5 confirmed clinical specimens	1/20/2015	1/20/2015
	Confirmed		9/18/2015	9/18/2015
	Confirmed		12/15/2015	12/15/2015
	Confirmed		6/3/2016	6/3/2016

Confirmed	3/28/2016	3/28/2016
Confirmed	12/15/2016	12/19/2016
Suspected	11/25/2016	11/25/2016
Suspected	3/8/2016	3/9/2016
Suspected	7/11/2016	7/11/2016
Suspected	8/23/2016	8/24/2016
Suspected	1/22/2016	1/25/2016
Confirmed	9/26/2016	9/27/2016

Suspected	8/1/2016	8/5/2016
Suspected	12/19/2016	12/20/2016
Suspected	4/25/2017	4/25/2017
Suspected	8/7/2017	8/9/2017
Suspected	2/2/2017	2/7/2017
Suspected	9/18/2017	9/18/2017

	Confirmed		12/1/2017	12/1/2017
2	Suspected		8/22/2017	8/22/2017
	Suspected		7/19/2017	9/6/2017
	Suspected	the clinical samples were not obtained from the cases for several days after illness onset	3/23/2018	3/23/2018
	Confirmed		5/1/2018	5/1/2018
	Confirmed		5/8/2018	5/9/2018
	Suspected		11/5/2018	11/5/2018

Suspected		7/18/2018	7/19/2018
Confirmed	gi illness associated with a christmas party	12/13/2018	12/14/2018
Confirmed	food catered to an off site catered lunch event for a funeral. 30 attendees; approx. 14 ill; food and clinical samples were positive for c. perfringens. stool and food isolates were unable to be matched via pfge. this may be attributed to the large	12/14/2018	12/14/2018
Suspected		3/1/2018	3/1/2018
Suspected		2/27/2018	2/27/2018
Confirmed		3/22/2018	3/22/2018
Suspected		4/23/2018	4/24/2018

Days between identification of establishment and first contact with the establishment	Number of visits to complete environmental assessment	Number of contacts with establishment	Facility type	Critical violations on the last inspection
0	2	4	Restaurant	9
0	2	4	Caterer	3
0	2	4	Restaurant	0
0	2	1	Restaurant	0
0	1	2	Restaurant	4
0	2	5	Restaurant	1

0	7	30	Restaurant	0
4	2	3	Restaurant	1
0	1	10	Restaurant	0
1	2	4	Mobile Food Unit	2
0	2	2	Restaurant	0
1	1	1	Restaurant	5
3	1	1	Restaurant	5
1	4	3	Restaurant	1

4	1	2	Restaurant	4
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1	1	1	Restaurant	2
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0	1	1	Restaurant	2
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2	2	4	Restaurant in Supern1	
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5	2	0	Restaurant	2
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0	2	0	Restaurant	5
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0	1	18	Restaurant	0
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0	1	4	Caterer	0
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49	3	3	Caterer	0
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0	2	2	Restaurant	5
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0	4	3	Restaurant	0
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1	1	0	Restaurant	7
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0	2	3	Mobile Food Unit	0
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1	2	3	Restaurant	1
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1	1	1	Restaurant	1
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0	1	1	Caterer	3
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0	1	1	Restaurant	3
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0	1	0	Restaurant	1
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0	1	3	Restaurant	1
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1	3	1	Restaurant	1
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Was a translator needed for the manager ?	Was a translator needed for the food worker?	Does the establishment serve raw or undercooked products?	Menu type	Date of the manager interview	Ownership type
No	No	No	Indian	6/17/2015	Independent
No	No	No	American	7/2/2015	Independent
Yes	Yes	No	Mexican	5/21/2015	Independent
No	No	Yes	American	10/22/2015	Independent
No	No	No	American	12/15/2015	Independent
No	No	No	American	No manager interview conducted	

No	No	No	American	6/27/2016	Independent
No	No	Yes	Italian	12/19/2016	Independent
No	No	No	American	1/5/2017	Independent
No	No	No	Mexican	No manager interview conducted	
Yes	Yes	No	Japanese	No manager interview conducted	
No	No	No	Indian	3/7/2017	Chain
Yes	Yes	No	Vietnamese	No manager interview conducted	
No	No	No	Filipino	9/27/2016	Independent

No	No	Yes	Mexican	8/5/2016	Independent
Yes	Yes	No	Mexican	No manager interview conducted	
No	No	No	Mexican	5/8/2017	Chain
No	No	Yes	Mexican	No manager interview conducted	
No	No	Yes	Mexican	2/7/2017	Independent
No	Yes	Yes	Columbia	9/21/2017	Independent

Yes	Yes	Yes	Mexican	12/4/2017	Chain
No	No	No	Mexican	No manager interview conducted	
No	No	No	American	9/6/2017	Independent
No	Yes	No	Chinese	4/19/2018	Independent
No	No	Yes	American	5/4/2018	Independent
Yes	Yes	Yes	Mexican	5/9/2018	Independent
No	No	No	American	9/17/2018	Independent

No	No	No	Mexican	8/9/2018	Independent
No	No	Yes	American	12/14/2018	Independent
No	No	No	American	12/14/2018	Independent
No	No	Yes	Mexican	3/1/2018	Independent
No	No	No	Mexican	No manager interview conducted	
No	No	No	Indian	3/22/2018	Chain
No	No	Yes	Mexican	No manager interview conducted	

Meals per day served by the establishment	Was the food prepared at a commissary or other location?	Where does the establishment purchase food?	Length the manager has been in a managerial position	Length the manager has been managing at the current establishment
100	No	general distributor, corporate distributor, grocery store, farmers market	8	8
200	No	general distributor, grocery store	8	5
400	No	general distributor	7	3
120	No	general distributor	8	8
100	No	general distributor	8	7

200	Unsure	general distributor, grocery 8 store	8
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350	Unsure	general distributor	8	6
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50	Unsure	corporate distributor, grocery store	8	8
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200	Unsure	general distributor, grocery 8 store	2
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8	Unsure	general distributor, grocery 5 store	5
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120	Unsure	general distributor	7	5
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300	No	general distributor	7	4
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99	No	general distributor	no response	2
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60	Yes	general distributor, corporate distributor	8	5
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700	Yes	general distributor	6	1
99	Yes	grocery store	8	8
250	No	General distributor, grocery store	8	8
50	No	general distributor and corporate distributor	8	8
250	No	corporate distributor	4	4
80	Yes	general distributor, corporate distributor, grocery store	5	8

100	No	general distributor, grocery 1 store		1
300	No	general distributor, grocery 8 store		8
80	No	general distributor, grocery 8 store		8
SKIP_99	No	general distributor	no response	no response
170	No	general distributor, corporate distributor, grocery store	3	3

Number of managers	Language the managers speak	Language the managers speak at work	Communication rating with the food workers from the manager's perspective	Number of managers who receive food safety training	Type of training
3	English, Bangla	English, Spanish, Bangla	Very well	3	Both
2	English	English	Very well	2	Both
2	English, Spanish	English, Spanish	Very well	2	Course
2	English	English	Very well	2	Course
2	English, Spanish	English	Very well	2	Both

3	English, Spanish	English, Spanish	Very well	2	Both
2	English	English	Very well	2	On-the-job
1	English	English	Very well	1	Course
3	Tamil, Malayalam	Tamil, Malayalam	Very well	3	Both
1	Filipino	Filipino	Very well	1	Course

1	English, Spanish	English, Spanish	Very well	1	On-the-job
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3	Spanish	Spanish	Very well	3	Course
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2	English, Spanish	English, Spanish	Very well	2	Course
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4	English, Spanish	English, Spanish	Very well	2	Course
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6	English, Spanish	English, Spanish	Somewhat well	6	Both
1	English	English	Very well	1	Course
2	English, Chinese	English, Chinese	Very well	1	Course
1	English	English	Very well	1	Course
1	Spanish	Spanish	Very well	1	On-the-job
1	English	English	Very well	1	Course

2	English, Spanish	Spanish	Very well	1	Both
2	English	English	Very well	2	Course
2	English	English	Very well	2	Course
1	English, Spanish	Spanish	Unsure	1	Course
2	English, Spanish, HIN	English, Spanish, HINDI, TELUGV, TAMIL	Very well	2	Course

Is food safety certification required for managers?	Is food safety certification required for kitchen managers?	Number of managers ANSI certified	Number of food workers	Language the food workers speak	Language the food workers speak at work
Yes	Yes	2	7	English, Spanish, Bangla	English, Spanish, Bangla
Yes	Yes	1	7	English	English
Yes	Yes	2	5	Spanish	Spanish
Yes	Yes	2	4	English	English
Yes	Yes	2	8	English, Spanish	English, Spanish

No	Yes	2	17	English, Spanish	English, Spanish
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Yes	Yes	1	5	English	English
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Yes	Yes	1	15	English, Spanish	English, Spanish
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No	Yes	2	10	Tamil, Malayalam	Tamil, Malayalam
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Yes	Yes	1	3	Filipino	Filipino
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No	No		6	English, Spanish	English, Spanish
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Yes	No		8	Spanish	Spanish
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No	No		10	English, Spanish	English, Spanish
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Yes	Yes	2	10	Spanish	Spanish
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Yes	Yes	2	15	English, Spanish	English, Spanish
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Yes	Yes	1	2	English	English
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No	No		5	English, Chinese	English, Chinese
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Yes	Yes	1	2	English	English
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No	No		1	Spanish	Spanish
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Yes	Yes	1	3	English	English
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No	Yes	1	3	English, Spanish	Spanish
No	Yes	2	10	English	English
Yes	Yes	1	1	English	English
No	Yes	1	5	Spanish	Spanish
Yes	Yes	2	11	English, Spanish, Hindi, Telugv, Tamil	English, Spanish, Hindi, Telugv, Tamil

Do food workers receive food safety training?	How many food workers have had training?	Which type of training do food workers receive?	Is there a policy for cleaning the kitchen floor?	Is there a policy for cleaning fridge units?	Is there a policy for cleaning cutting boards?
Yes		4 On-the-job	Yes	Yes	Yes
Yes		7 On-the-job	Yes	Yes	Yes
Yes		5 On-the-job	Yes	Yes	Yes
Yes		4 Both	Yes	Yes	Yes
Yes		8 On-the-job	Yes	Yes	Yes

Yes	17 On-the-job	Yes	Yes	Yes
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Yes	5 On-the-job	Yes	Yes	
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Yes	1 Both	Yes	Yes	Yes
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Yes	7 Course	Yes	Yes	No
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Yes	2 On-the-job	Yes	Yes	Yes
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No

None

Yes

Yes

Yes

Yes

8 Course

Yes

Yes

Yes

Yes

10 Course

Yes

No

No

Yes

10 On-the-job

Yes

Yes

Yes

Yes	15 On-the-job	Yes	Yes	Yes
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Yes	2 Course	Yes		Yes
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Yes	5 On-the-job	Yes	Yes	Yes
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Yes	2 On-the-job	Yes	No	Yes
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No	None	Yes	Yes	Yes
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Yes	3 On-the-job	Yes	No	Yes
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Yes

3 On-the-job

Yes

No

Yes

Yes

10 On-the-job

Yes

Yes

Yes

Yes

1 On-the-job

Yes

Yes

Yes

Yes

5 On-the-job

Yes

Yes

Yes

Yes

11 On-the-job

Yes

Yes

Yes

Is there a policy for cleaning food slicers?	Is there a policy for cleaning food preparation tables?	Is there a policy concerning glove use?	Are workers required to wear gloves when working in kitchen?	Are workers required to wear gloves when handling ready-to-eat foods?
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Yes

Yes

No

Yes

Yes

Yes

Yes

No

Yes

Yes

Yes

Yes

Yes

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Yes

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Yes

Yes Yes Yes No Yes

Yes Yes Yes No No

Yes Yes Yes Yes

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Yes Yes Yes

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Yes

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Yes

Yes

Yes

Yes

Yes

Yes

Yes

No

Yes

Are workers required wear gloves when handling raw meat or poultry?	Are workers required to wear gloves when they have a skin injury?	Does the establishment take temperatures of incoming foods?	Are incoming temperatuers recorded?	Does the establishemtn take temperatures of foods?
Yes	Yes	Yes	No	Yes
No	Yes	No		Yes
		No		Yes
Yes	Yes	No		Yes
Yes	Yes	Yes		Yes

No

Yes

Yes

No

Yes

Yes

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No

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Yes

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Yes

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Yes

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Yes

No

Yes

Yes

No

Yes

No

Yes

Yes

No

Yes

No

No

Yes

Yes

No

No

Does the establishment record temperatures of foods?	Is there an ill worker policy?	Is there a policy to exclude/restrict ill workers?	Date the establishment observation was conducted	Number of cold storage units	Is there a reach-in cold storage unit?
No	Yes	Yes	5/11/2015	7	Yes
No	Yes	Yes	7/2/2015	4	Yes
Unsure	Yes	No	2/3/2015	7	Yes
No	Yes	Yes	9/18/2015	7	Yes
No	Yes	Yes	12/15/2015	5	Yes
			6/3/2016	3	Yes

No	Yes	Yes	6/27/2016	12	Yes
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No response	Yes	Yes	12/19/2016	8	Yes
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Yes	Yes	No	11/25/2016	1	No
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			3/9/2016	2	Yes
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			7/11/2016	2	Yes
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No	Yes	Yes	8/24/2016	7	Yes
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			1/25/2016	4	Yes
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No	Yes	Yes	9/27/2016	2	Yes
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No	Yes	Yes	8/5/2016	8	Yes
			12/20/2016	4	Yes
No	Yes	Yes	4/25/2017	3	Yes
			8/9/2017	11	Yes
No response	Yes	Yes	2/7/2017	6	Yes
No	Yes	Yes	9/21/2017	5	Yes

Yes	Yes	No	12/4/2017	13	Yes
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No	No	Yes	9/6/2017	1	Yes
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Yes	Yes	Yes	3/23/2018	6	Yes
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No	Yes	Yes	5/4/2018	3	No
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No	Yes	No	5/9/2018	3	No
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No	Yes	No	9/14/2018	4	Yes
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Yes	Yes	Yes	7/19/2018	4	Yes
No	Yes	Yes	12/14/2018	9	No
Yes	Yes	Yes	12/14/2018	4	No
No response	Yes	Yes	3/1/2018	5	No
			2/27/2018	6	Yes
No response	Yes	No	3/22/2018	12	No
			4/24/2018	4	Yes

Is there a self-serve/salad bar?	Is there a walk-in cold storage unit?	Is there an open top cold storage unit?	Are cold storage units maintained at 41 degrees F or below?	Number of units above 41 degrees F	Type of unit above 41 degrees F
Yes	No	Yes	Yes		
Yes	No	Yes	Yes		
Yes	No	Yes	No	4	Reach in, open top
No	No	No	Yes		
Yes	No	No	No	1	reach in
Yes	No	Yes	Yes		

Yes Yes Yes Yes

Yes Yes No Yes

Yes No No Yes

No No Yes Yes

No No Yes No 1 reach in

Yes Yes Yes No 1 open top

Yes No Yes Yes

No No No Yes

Yes	No	Yes	No	6	reach in, walkin, open to
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Yes	No	Yes	Yes
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Yes	No	Yes	No	1	open top
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Yes	Yes	Yes	No	2	Reach in, open top
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Yes	No	Yes	Yes
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Yes	No	Yes	Yes
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Yes No Yes Yes

Yes No No Yes

Yes No Yes Yes

No No No No 1 reach in

No No No Yes

No No No Yes

Yes No Yes Yes

No No No Yes

No No No Yes

No No No Yes

Yes No Yes No 1 open top

No No No No 2 Reach in, open top

Yes No Yes No 1 walk in

Are there records to indicate temperature of incoming products?	Are there records to indicate food temperatures?	Is there evidence of cross contamination between raw animal products and ready-to-eat foods?	Describe the cross contamination	Is there cooling of hot foods in the establishment?
No	Yes	No		Yes
No	No	No		Yes
No	No	No		Yes
No	No	No		Yes
No	No	No		Yes
Yes	Yes	No		Unsure

No	No	No		Yes
No	No	No		Unsure
No	No	No raw products used		Yes
No	No	No		Yes
No	Yes	Yes	raw meat in direct contact with rte foods in cold holding.	Yes
No	No	No		Yes
No	No	Yes	raw meat in direct contact with rte foods and partially cooked meats in reach-in.	Yes
No	No	No		Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

No

Yes

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

Yes

raw seafood over rte food,
raw beef over finfish

Yes

No

No

No

Yes

No

No

No

Yes

No

Yes

No

Yes

No

No

No

Unsure

No

Yes

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

No

No

No

Yes

Other cooling evidence described	Are there measured temperatures of hold holding 135 degrees F or above?	Are there measured temperatures of cold holding 41 degrees F or below?	Is there evidence of foods being cooked at recommended temperature levels?
	No	No	Yes
	Yes	Yes	Yes
	No	Could not observe	Could not observe
large batch of pasta cooling over a bin of ice	Yes	Yes	Could not observe
	Could not observe	No	Could not observe
	Yes	Yes	Yes

Yes

Yes

Yes

Yes

Yes

Yes

foods left on tables and put in walk-in refrigerator.

Yes

Yes

Could not observe

deep pan cooling
room temperature cooling

Yes

No

No

deep pan cooling, covered cooling,
cooling in broken refrigerator.

Yes

No

Could not observe

room temperature cooling
deep, covered pan cooling

Yes

No

No

Yes

Yes

No

room temperature cooling
deep pan cooling

No

No

Could not observe

Yes

Yes

Yes

improper cooling in pans 4-6" deep

No

No

Could not observe

improper deep pan cooling

Yes

No

Yes

improper deep pan cooling

Yes

Yes

Could not observe

Yes

No

Yes

Yes

Yes

No

deep pan cooling
whole roast cooling

Could not observe

Could not observe

Could not observe

Yes

Yes

Yes

Could not observe

No

Could not observe

Yes

No

Could not observe

Could not observe

Yes

Could not observe

several food items were not being cooled properly and had to be discarded	Yes	No	Could not observe
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	No	Yes	Could not observe
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	Yes	Yes	Yes
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shredded chicken improperly cooled in deep containers.	Yes	Yes	Yes
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improper deep pan cooling	Yes	Yes	Could not observe
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improper cooling- large portions in large pans found made in the morning before the assessment.	No	No	Yes
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improper deep pan cooling	Yes	No	Could not observe
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Were there any differences to the physical facility, food handling practices you observed on your initial visit or other circumstances that were different at the time of exposure?

kitchen manager was on vacation, many workers did not show up for shift, no gloves available at time period in question

no observation

new commissary kitchen.

no active managerial control of many risk factors.

both hand sinks in kitchen with blocked access. improper cooling of many foods.

non-continuous cooking done improperly, improper cooling of foods, cross-contamination of foods, unclean equipment and utensils used.

roasts were stored in non mechanical holding units for transport. followed by inadequate reheating and hot holding of roasts at food service location.

the firm does not normally cater events. the cooking process for this event did not involve a cool step for food prepared for the event. cook serve only.

an environmental assessment was conducted of the food truck. on the day of the outbreak the food truck set up at a business office for an employee appreciation event.

walk-in was being repaired due to temperature issues on the meal date in question which may have contributed to time/temperature abuse of food items.

customers do not usually have direct access to food on buffet lines but this event had foods that were available for self service.

rice and beans stored at room temp and then improperly cooled; inadequate hot holding

facility received product from commissary; improperly cooled foods.
malfunctioning refrigeration.

Part 4 comments

managers said they were cooling with ice, but multiple large containers of food found out of temp. in walk-in cooler-hadn't cooled properly and were covered. items discarded. manager said they restrict ill employees from working with food but do not exclude if they have vomiting and/or diarrhea.

caterer had 3 large events to provide food for on the same evening, this is unusually large amount of food for him

operating without hot water, cold hold units not maintaining proper temperature

food prepared at the restaurant for an event at another location. instructions given to the event organizer on how to handle hot and cold foods.

3 large parties booked on 12/12/15. pork arrived later than usual & didn't have a chance to thaw like it normally does. manager interview & observations also occurred on 1/11/16

this is the first time that the facility prepared the large steamship round roast for the easter buffet

food was placed in cardboard boxes and transported without appropriate temperature control. the restaurant has did not report ill workers or equipment failure within the restaurant. the hot foods were in pans using sternos.

- 1) no working refrigerator on cooking line. walk-in refrigerator is the only refrigerator in kitchen
- 2) very large quantities of food prepared for large number of people over a short time

foods at the commissary left at room temperature overnight. also deep pan cooling in refrigerator at commissary.

during environmenral assessment found improper cooling, cross-contamination, and inadequate cold holding of implicated food. many other critical items also observed.

refrigerator at 65°F. no sanitizer used in kitchen. long history of repeated critical violations. several closures.

many food found improperly cooled, undercooked, cross-contaminated.

the food establishment has insufficient cold storage space for the amount of food preparation they do for events. most foods are prepared the day before and many hot foods are kept in a small reach in cooler. disposable gloves are on site, however, they are washed and reused. no hand wash sink in the steam table dispensing area.

potentially hazardous foods stored in turned off oven, sometimes overnight. continued history of hot holding, cold holding, and reheating of potentially hazardous foods

no temperature concerns noted during ea; however, there is a history of repeated temperature violations - including reheating, cold holding, hot holding, and room temperature storage noted on 3 consecutive visits within the last 8 months.

improper cooling and hot holding of beans. hot holding has been an ongoing problem at this facility. cold holding problems regularly observed.

inadequate sanitizing solution used for wiping cloths. cooling chicken 6" deep. two refrigerators not working properly.

multiple cooling issues were found during the assessment. establishment does portion out the food into smaller containers but because of the dense food products, it does not cool fast enough to meet the cooling parameters. cooling methods were discussed during the assessment.

while cold and hot holding temperatures are monitored and recorded, cooling, cooking and reheating temperatures are not being monitored or recorded. during the environmental assessment, it was observed that some larger pieces of the carnitas required three attempts at reheating in the fryer to reach an internal temperature of 165F. normal establishment process is to only fry once, then place in steam table, without verifying internal temperature of pork before hot holding.

establishment is in the exact same condition poor as during a previous noro outbreak investigation.

normal cooking/cooling processes did not apply for the catered foods.

prime rib was cooked overnight and was hot holding at 126F for service on 12.14.18 no record that the prime rib ever reached 130F for 112 minutes

Were there differences with the ingredient(s) used, such as a different source for the ingredients, a different form (fresh instead of canned), or a substitution (red round tomatoes instead of cherry)?

Were there differences with how ingredient(s) were handled?

Were there differences with the method of preparation, cooking, holding, serving the food?

Yes

Yes

Yes

Yes

No

Yes

Yes

No

Yes

Yes

Yes

Yes

Yes

No

No

Yes

Yes

Yes

Yes

Yes

No

Yes

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Yes

Yes

Yes

No

No

No

No

No

No

Yes

Yes

No

Yes

Yes

Were there differences with equipment used to handle the food?

Were there differences with equipment used to cook the food?

Were there differences with equipment used to store or hold the food?

Were there differences with cleaning and sanitizing food contact equipment?

Yes

Yes

Yes

Yes

Yes

Yes

Yes

1

Yes

Yes

Yes

Yes

Yes

Yes

Other differences observed

Food item

chicken vindaloo, ingredients unspecified

higher volume of food being prepared in the establishment at one time

garlic, pepper, pork collars, salt, dried thyme

food workers should have been excluded were handling food & touching surfaces, improper glove use

chicken

ground beef, pasta, tomatoes

pork

bbq pulled pork

steamship beef roast

served 800 customers - much more than usual
dinner meals

turkey stock

carne asada (cooked beef)

teriyaki chicken, rice

Goat, rice

chicken

butter, cassava, coconut macapuno,
milk, sugar, sweetened coconut

carne asada, ground beef, refried
beans, rice

pork

pinto beans

chicken

chicken al pastor, pork al pastor

beef, corn tortilla, potatoes, salsa

cumin, pork butt, half half, jalepenos,
lard, milk, mozzarella, onions, oregano,
queso fundido, salt

warm food stored in a car from 6:00am to
6:00pm.
cooking/cooling in an unpermitted kitchen.

chicken

long transportation time with non mechanical
holding units.

roast beef

rangoon skins

Bell peppers, sausage

Hamburger

Prime Rib

shredded chicken

pinto beans, rice

chicken, coconut, goat, milk, nuts, oil,
onion, raisins, rice, spices, sugar,
tomato , yogurt

Beans, rice

Part 5 comments

Were environmental or food samples taken?

Was a routine inspection conducted to determine the contributing factor?

Yes

frozen pork collars cooked for 3 1/2 hrs - cool 30 min - pull - cooler overnight - reheat in altosham 2 1/2 hrs

No

Yes

No

Yes

a) cooked and prepared in restaurant, served at another location b) cooked and assembled in restaurant and served at another location c) food processed and cooked at restaurant and served at another location

No

pork arrived late was not thawed prior to cooking as it normally is

Yes

Yes

Yes

the roast weighed approximately 65 pounds, and was cooked in an oven for 14 hours at 250F, and then held for an additional 5 hours at 130 in the same oven. roast was then brought to the carving station, where it was served over a several hour period.

Yes

Yes

No

the chef used 7 day old turkey carcasses to make turkey stock. he held the gravy for 10 hours on the stove top. no temperatures were taken.

Yes

Yes

carne asada cooked and cooled at commissary. slow deep covered cooling in reach in. history of foods stored overnight at room temperature. transport from commissary to mobile unit in unrefrigerated vehicle.

No

Yes

a) after thawing, chicken is partially cooked, then cooled in malfunctioning refrigerator - reheated to order. no temperatures taken. b) rice held in steamer overnight - unattended and improperly cooled in bags in a malfunctioning refrigerator then microwaved to order.

No

Yes

a) rice improperly cooled in deep pans stored in a broken refrigerator at 65°F. b) goat was cooled in deep pan and broken refrigerator then cold held in 65°F refrigerator. reheated for service.

No

Yes

chicken was par cooked then stored at room temperature, then improperly cooled, stored at room temperature again, stir-fried to order.

No

Yes

Yes

a)beans stored in the turned off oven. room temperature storage followed by inadequate reheating. b) cooked carne asada held on the grill inadequate hot holding. c) ground beef held in the oven (turned off) at unsafe temperatures. room temperature storage followed by inadequate reheating. d) rice hot held at 118°F. extra rice held in the turned off oven followed by inadequate reheating.
shredded pork served on top of nachos.

No
No

Yes

dried pinto beans, soaked, cooked, cooled, reheated, hot held for service

No

chicken was prepared two different ways but both prep methods included improper cooling. chicken served in flautas, burritos, enchiladas.

No

Yes

a) chicken cooked in oven > improperly held at room temp for many hours > diced > improperly cooled > held at room temp for several hours > reheated for service. no temps were taken. b) skewered pork slices cooked on vertical rotisserie > partially cooked meat bundles improperly cooled > cooking resumed next day > sliced

No

Yes

a) during the assessment, beef that had not been cooled properly was observed. b) corn is cooked and then ground into a paste with dry flour. they are rolled into balls and then pressed flat into round shells.

No

	Yes	Yes
chicken cooked > cooled > shredded > reheated > stored in car 12+ hours.	No	
	No	
food flow: crab received frozen -> defrosted in wic -> chopped and mixed with other ingredients in mill (handled and mixed w/gloved hands) -> spooned into skin/placed on tray -> frozen -> cooked in deep fryer -> served: *note -> mill had old soil and raw chicken in/on it in storage	Yes	
a) raw bell peppers that were cut and sautéed prior to mixing with the cooked sausage links. b) commercially made sweet italian sausage links. received raw and required cooking to a final cooking temperature prior to being incorporated into final dish with peppers.	Yes	
	No	Yes
the hamburgers were cooked several hours prior to the event. the burgers were grilled on a flat top grill and placed in a hotel pan. boiling chicken broth was added to the pan. the pans were then put in cambros for transport. the burgers remained in the cambros as the food truck did not have hot holding units. no temperatures were taken of the burgers to ensure they remained above 135.	Yes	

No

No

Yes

Yes

Yes

No

No

No

No

Was an environmental assessment conducted to determine the contributing factor?

Was another type of environmental investigation conducted to determine the contributing factor?

Was a contributing factor identified based on assumptions on etiology?

Was a contributing factor identified based on an interview of a food worker?

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

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Yes

Yes

Yes

Yes

Was a contributing factor identified based on an environment/food sample culture?

Yes

Was a contributing factor identified based on clinical samples/symptoms?

Yes

Yes

Yes

Yes

Yes

Yes

Was a contributing factor identified based on an epidemiologic investigation?

Yes

Yes

Yes

Yes

Was a contributing factor identified based on any other methods?

Number of contamination contributing factors

1

Yes

Yes

Yes

1

Yes

Yes

Yes

Yes

Yes

2

Yes

1

Yes

2

Yes

Yes

Yes

1

Yes

Yes

Yes

Yes

Yes

1 We found improper cooling for the suspected food item during the assessment.

Yes

Yes

Yes

Yes

Yes

1

Yes

Yes

Yes

Yes

Yes

Yes

1

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Number of proliferation contributing factors	Number of survival contributing factors	Contributing factor(s)	Primary contributing factor
1	1	1 P8, S2	P8
1	1	P8	P8
1	1	1 P7, S2	P7
1	1	1 P7, S1, C6	P7
2	1	1 P1, P8, S2	P8
2	1	1 P2, P8, S2	P2

1 C6, P2 C6

1 P2 P2

2 P2, P8 P8

4 3 C15, C9, P1, P2, P4, P8, S1, S2, P8

2 1 C15, P5, P8, S4 P8

3 1 C14, C9, P1, P5, P8, S1 P8

5 2 C9, P1, P2, P5, P7, P8, S1, S2 P5

4	1	P2, P5, P6, P7, S2	P2
1	1	P7, S2	S2
2		P7, P8	P8
1		P8	P8
2	1	P2, S2, P8	P8
1		P8	P8

1 1 P8, S2 P8

5 1 P8, P2, P5, P7, P12, S2 P2

2 2 S1, S2, P7, P8 P8

1 C9, S1 C9

1 P8 P8

1 P8 P8

7 P7 P7

1

P4

P4

1

P1

P1

1

P1

P1

3

3

1 P2, P7, P8, S2

P8

1

P8

P8

3

P4, P5, P8

P8

Briefly explain why this is a contributing factor in this outbreak. **When did the contributing factor occur?**

multiple cooling violations observed while conducting environmental assessment. Vehicle at establishment

unusually large batch of pork was cooled improperly in large containers, in a walk in cooler that was undersized, slow reheat. no temps recorded at any point in process. 6 positive clinical samples Vehicle at establishment

based on etiology of agent, hot holding units were not functioning properly or adequate for food capacity Vehicle at establishment

goulash prepared in restaurant and transported, hot held, and served at another location After vehicle left establishment (CF22, 28)

improper cooling of large quantity of pork that may or may not have been cooked properly Vehicle at establishment

the caterer had no other reports of issues from food served to other customers from the same pork that day. also, the food was for a graduation party and most likely left out for an extended period of time. After vehicle left establishment (CF17)

in order for the pathogen to proliferate to a high count, it must have been present prior to arrival at the establishment.

Prior to vehicle entering (CF6)

processes conducted in the establishment consistent with etiology of the agent. also, positive clinical samples indicated that agent and the vehicle were correlated.

After vehicle left establishment

improper cooling of carne asada during environmental assessment. also history of improper cooling of this same product.

Vehicle at establishment

slow cooling at room temperature and in a broken refrigerator of both rice and chicken.

Vehicle at establishment

improper deep pan cooling in buckets.

Vehicle at establishment

deep pan cooling of chicken. also included room temperature storage before and after cooling.

Vehicle at establishment

we believe the cake was contaminated by meat after the cake was cooked and the staff did not ensure that the cake was protected or cooled properly to ensure there was no proliferation of pathogens.

Vehicle at establishment

allowing potentially hazardous foods (beef, rice, beans, carne asada) to be held at uncontrolled temperatures likely allowed pathogens to grow and cause illness. room temperature storage throughout the day and often overnight.

Vehicle at establishment

inadequate reheating noted during routine inspection conducted two months earlier. also consistent problems with hot holding noted repeatedly on prior inspections.

Vehicle at establishment

improper cooling 5" deep in overcrowded walk-in. beans at 130F after several hours in walk-in.

Vehicle at establishment

inadequate cooling of chicken in deep pans in walk-in.

Vehicle at establishment

slow deep pan cooling of partially cooked meat bundles.

Vehicle at establishment

we found improper cooling with multiple ingredients in the beef empanada. the beef empanada was the only item all of the ill individuals ate and was the suspect food item. improper cooling is often associated with c. perfringens.

Vehicle at establishment

c. perfringens was identified via clinical samples as the primary agent in this outbreak and would have had the opportunity to grow during improper cooling of food. improper cooling methods were observed during the environmental assessment.	Vehicle at establishment
chicken was stored in a warm car for >12 hours.	After vehicle left establishment
large roasts cooled intact in the walk-in; sliced after cooling completed.	While vehicle was at establishment (CF28, 29, 23)
the prep work surfaces were excessively soiled and considerable hand-prep of raw ingredients	Vehicle at establishment
toxin testing was positive in 3 clinical samples from cases and this food was statistically implicated.	Vehicle at establishment
positive clinical samples for clostridium perfringens	After vehicle left establishment
the establishment did not properly hot hold the hamburgers. hamburgers were held in cambros that did not plug in and were meant for transport only.	Vehicle at establishment

walk-in cooler was being repaired due to improper cold-holding which likely contributed to improper cooling and time/temp abuse of foods. Vehicle at establishment

all ill persons ate the prime rib. no persons that were not ill, ate prime rib. Vehicle at establishment

observed pulled pork that was identified as portioned and cooled from the previous day that was above 41F Vehicle at establishment

cooling of rice & beans at room temp and in deep pots in a reach-in. Vehicle at establishment

foods are refrigerated in large quantities or stored in devices where the temperature is poorly controlled allowing pathogens to multiply. saw examples during the assessment. Vehicle at establishment

Vehicle at establishment

Environmental antecedent(s)

Root Cause

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies 3) Insufficient capacity of equipment (not enough equipment for the processes)

1) Employees or managers are not following the facility's process

1) Lack of a food safety culture/attitude towards food safety 2) Food not treated as a TCS

1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies the establishment has in

1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies 3) Language barrier between management and employees 4) Employees or managers are not following the facility's process the root cause of this c. p

1) Lack of a food safety culture/attitude towards food safety 2) Food not treated as a TCS 3) Other: Prepared food in unpermitted kitchen 1) chicken cooked > cool

1) Insufficient capacity of equipment (not enough equipment for the processes) 2) Employees or managers are not following the facilities process 3) Other: Poor equipment for transport

1) Lack of a food safety culture/attitude toward food safety 2) Insufficient capacity of equipment (not enough equipment for the processes) 3) Insufficient process to mitigate the hazard

1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies 3) Lack of food safety culture/attitude towards food safety 4) Insufficient capacity of equipment (not enough equipment for the processes) 5) Lack of equipment necessary for 1) Other: Product was likely temperature abused no root cause identified after leaving facility

1) Equipment is improperly used the establishment was u:

1) Lack of training of employees on specific processes 2) Equipment is improperly used

walk-in cooler not holdin

1) Insufficient process to mitigate the hazard

this is the process that h.

1) Insufficient process to mitigate the hazard

N/A

N/A

1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies 3) Lack of a food safety culture/attitude towards food safety 4) Equipment is improperly used
1) Lack of training of employees on specific processes 2) Lack of oversight of employees/enforcement of policies
3) Low/insufficient staffing 4) Lack of a food safety culture/attitude towards food safety
5) Lack of preventative maintenance on equipment
6) Poor facility layout 7) Lack of reinvestment in the restaurant

Operational Antecedent 1

Operational Antecedent 2

Process- process changed during preparation

People- lack of adherence to food safety procedures

Process- increased capacity

Process- process changed during preparation

People-no active managerial control

People-no active managerial control

Processs- increased capacity

Process- process changed during preparation

People-no active managerial control

Process- process changed during preparation

Process- new operations

Equipment- not enough equipment

Process- increased capacity

Process- process changed during preparation

Process- new operations

People- lack of food safety culture

Equipment-malfunctioning cold-holding equipment

People- no active managerial control

Equipment-malfunctioning cold-holding equipment

People - lack of food safety culture

People - lack of adherence to food safety procedures

Process- process changed during preparation

Equipment - not enough equipment

People - Lack of adherence to food safety procedures

Equipment - hot-holding equipment not used as intended

People - Lack of adherence to food safety procedures

People - lack of adherence to food safety culture

Equipment - Not enough equipment

People - lack of adherence to food safety culture

People -lack of adherence to food safety procedures

Equipment - malfunctioning cold-holding equipment

People - lack of adherence to food safety culture

Process-process changed during preparation

People - Lack of adherence to food safety procedures

Process-process changed during preparation

People - Lack of adherence to food safety procedures Process-process changed during preparation

Process-new operations

People - lack of adherence to food safety culture

People - Lack of adherence to food safety procedures Equipment- not enough equipment

People - lack of adherence to food safety culture

Equipment- not enough equipment

People - lack of adherence to food safety culture

Equipment- not enough equipment

Process - new operations

Equipment- hot-holding equipment not used as intended

Equipment - malfunctioning cold-holding equipment People - Lack of adherence to food safety procedures

Process - process changed during preparation People - Lack of adherence to food safety procedures

People - Lack of adherence to food safety procedures Process - process changed during preparation

People - Lack of adherence to food safety procedures

People - Lack of adherence to food safety procedures

Equipment- not enough equipment People - Lack of adherence to food safety procedures

Equipment - malfunctioning cold-holding equipment People - Lack of adherence to food safety procedures