

Appendix I: Environmental Assessment Form




Kentucky Department for Public Health Foodborne Illness Environmental Health Assessment Report		 Kentucky Public Health <small>Prevent. Promote. Protect.</small>
EA Information	Environmental Assessment Identification: Short Description: Outbreak Year:	
Data Collector		
Name Data Collector:		
Job Function:	Agency Type:	
<input type="checkbox"/> Collector Received Assessment Training	Date of Assessment	
Establishment Information		
Establishment Name:		Type of Facility: <input type="checkbox"/> Restaurant <input type="checkbox"/> Grocery <input type="checkbox"/> Healthcare <input type="checkbox"/> Daycare <input type="checkbox"/> School <input type="checkbox"/> Detention Center <input type="checkbox"/> Private Home <input type="checkbox"/> Other _____
Address:	County:	
Zip:		
Date Complaint Received:		
Complaint Short Description:		
Date of Suspected Meal:		
Suspected Meal Short Description:		
Implicated/Suspected Pathogen:	Number of Persons ill:	
Implicated/Suspected Food(s):		
1		

Image Source: Kentucky Department for Public Health Food Safety Branch

EA ID: _____ Outbreak Year: _____



Environmental Health Assessment Checklist

Interview and Document Collection

- Conduct interview and assessment with Person in Charge (PIC)
- Inform the PIC of the objectives of the assessment
- Obtain a list of food employees with contact numbers
- Obtain food employee work schedule
- Interview food employees about food preparation practices
- Interview food employees for evidence of illness
- Interview ill food employees to determine common exposures
- Determine food employee duties
- Obtain a copy of the menu of the foods served including daily specials that may not be on the menu
- Obtain the suppliers' receipts/invoices for the suspect foods
- Collect copies of actual facility information, written policies, invoices, labels, and other items if possible

Walkthrough and Observation

- Conduct a walkthrough
- Observe all operations for product or process in question
- Collect leftover food samples and send to state lab for testing, if available. Obtain original packaging, if possible
- Observe general food preparation practices
- Collect photographic evidence and other sources of objective data that could be used to assess process control points (i.e. temperature logs, test results, records of sanitizer taken, etc.)
- If raw oysters are involved, obtain tag(s) from suspected lot(s). If possible, collect 10-12 oysters from suspect lot(s) and contact your regional foodborne disease epidemiologist

Assessment and Observation of Food Flow

- Assessment of suspect food or process
- Develop and attach a facility layout diagram, if applicable
- Summarize and determine contributing factors
- Develop a flow chart or food flow diagram for the implicated food item or ingredient to capture detailed information about each step in the food handling process
- Conduct a trace back of suspect foods, if warranted
- Identify the source of suspect foods

Follow-up and Finalization of Assessment

- Recommend actions to prevent future outbreaks
- Initiate and document corrective actions

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Interviews and Document Collection

Person in Charge Interview (For any "Yes", collect documentation or evidence from facility)

Quantity of Suspected Food(s) Sold/Served:

Were any similar complaints received? If yes, collect information available	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were any food employees ill in the two weeks prior to the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did any food employee(s) become ill in the two weeks after the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a sick leave policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were any clinical specimens collected from food workers?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were any food/water samples taken?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility routinely track and document temperatures or have an HACCP program?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a bare-hand contact with ready to eat (RTE) food policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a glove-hand contact with ready to eat (RTE) food policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do you have an employee health policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are you certified food protection manager?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Person In Charge Comments:

Employee Interview (For any "Yes", collect documentation or evidence from facility)

Were any similar complaints received? If yes, collect information available		
Were any food employees ill in the two weeks prior to the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were you ill in the two weeks prior to the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did any food employee(s) become ill in the two weeks after the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you become ill in the two weeks after the suspected event?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a sick leave policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did any food employee(s) work while sick?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you work while sick?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility routinely track and document temperatures or have an HACCP program?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a bare-hand contact with ready to eat (RTE) food policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the facility have a glove-hand contact with ready to eat (RTE) food policy?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Employee Comments:

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Walkthrough and Observations

On-site Investigation

	Y (Yes)	N (No)	N/A (Not Applicable)	N/O (Not Observed)
1. Inadequate/Improper hand washing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Food employees have visible cuts, burns, or infected sores on hands/arms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Bare-hand contact by a food worker who is suspected to be infectious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Glove-hand contact by a food worker who is suspected to be infectious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Food or water not from approved sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Inadequate protection of suspected food(s)/Improper food storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Insufficient cold holding time/temperature(s) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Prolonged cold storage (more than 7 days) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Improper thawing of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Insufficient cooking time/temperature(s) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Insufficient cooling time/temperature(s) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Insufficient reheating time/temperature(s) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Insufficient hot holding time/temperature(s) of suspected food(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Major equipment malfunctions or facility operations failures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Calibrated food thermometer not available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Cross-contamination of RTE foods with raw ingredients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Cross-contamination of ingredients – Workers/Equipment/Utensils/Cloths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Improper cleaning and sanitization of equipment/utensils/food contact surfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Food additives not approved or not properly used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Toxic substances identified, stored and used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Addition of excessive quantities of ingredients that are toxic in large amounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Not compliant with variance, specialized process or HACCP Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Insufficient/Improper use of chemical processes designed for pathogen destruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Person in charge not assigned, knowledgeable, or performing duties/responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Food employees not knowledgeable about food safety or employee health reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Consumer advisory requirements not posted, if applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Insects, rodents or animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Toilet facilities not properly constructed, supplied and cleaned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. No proper date marking and disposition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Food not properly labeled, or in original container	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. The person in charge is not present and cannot demonstrate knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Walkthrough and Observations

Walkthrough and Observation Comments

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Assessment and Observation of Food Flow

Assessment of Implicated/Suspect Food or Process (Required) Describe the food flow for the implicated food item(s) or ingredient(s) to capture detailed information about each step in the food handling process, including who prepared what and when. Note size of containers, labels, and descriptive information on product(s). Complete a separate assessment of each implicated/suspected food, if applicable.

Food Source:	Supplier/Distributor: _____
Date Received: _____	Size and Package Type: _____
Brand Name: _____	Product Code(s): _____
Product Name: _____	Expiration Date: _____
Manufacturer: _____	
Condition Received:	
Temperature(s):	
Storage:	
Temperature(s):	
Preparation:	
Temperature(s):	
Cooking:	
Temperature(s):	
Cooling:	
Time/Temperature(s):	
Reheating:	
Temperature(s):	
Holding:	
Time/Temperature(s):	
Assembling/Plating (including garnishing):	
Temperature(s):	
Service:	
Temperature(s):	

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Follow-up and Finalization of Assessment

Recommended Actions to prevent future outbreaks:

Initiate and Document Corrective Actions:

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Follow-up Survey

Please complete this follow up survey to ensure all necessary data for this assessment is collected.

Outbreak - General Characterization

- 1) Did this outbreak span multiple states? Yes No
-
- 2) What activities were conducted during the outbreak investigation to try to identify the contributing factors? (Check all that apply)
- Assumed based on etiology
 - Clinical sampling
 - Environmental sampling
 - Epidemiologic investigation (case-control or cohort study)
 - Food preparation review
 - Food sampling
 - Interviews with cases (but not controls)
 - Interviews with establishment manager(s)
 - Interviews with establishment worker(s)
 - Observation of general food preparation activities during establishment visit
 - Routine inspection
 - Traceback
 - Other (Please describe)
-
- 3) What control measures were implemented? (Check all that apply)
- Changed operational practice
 - Cleaned and sanitized/disinfected restaurant
 - Closed restaurant
 - Discarded food
 - Embargoed food products
 - Excluded ill/infectious workers
 - Public notification
 - Re-trained or trained food worker(s)
 - Repaired/replaced/removed equipment
 - Other (Enter a new value)

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Follow-up Survey

Please complete this follow up survey to ensure all necessary data for this assessment is collected.

Outbreak - General Characterization

1) Did this outbreak span multiple states?

Yes

No

2) What activities were conducted during the outbreak investigation to try to identify the contributing factors? (Check all that apply)

- Assumed based on etiology
- Clinical sampling
- Environmental sampling
- Epidemiologic investigation (case-control or cohort study)
- Food preparation review
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- Interviews with cases (but not controls)
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- Other (Please describe)

3) What control measures were implemented? (Check all that apply)

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- Discarded food
- Embargoed food products
- Excluded ill/infectious workers
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- Re-trained or trained food worker(s)
- Repaired/replaced/removed equipment
- Other (Enter a new value)

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Contributing Factors

- 4) Which contributing factor was identified?
- C1 - Toxic substance part of the tissue
 - C2 - Poisonous substance intentionally/deliberately added
 - C3 - Poisonous substance accidentally/inadvertently added (e.g., sanitizer or cleaning compound)
 - C4 - Addition of excessive quantities of ingredients that are toxic in large amounts (e.g., niacin poisoning in bread)
 - C5 - Toxic container (e.g., galvanized containers with acid foods)
 - C6 - Contaminated raw product-food was intended to be consumed after a kill step
 - C7 - Contaminated raw product-food was intended to be consumed raw or undercooked/ under-processed (e.g., raw shellfish, produce, eggs)
 - C8 - Foods originating from sources shown to be contaminated or polluted (such as a growing field or harvest area) (e.g., shellfish)
 - C9 - Cross-contamination of ingredients (cross-contamination does not include ill food workers)
 - C10 - Bare-hand contact by a food handler/worker/preparer who is suspected to be infectious (e.g., with ready-to-eat-food)
 - C11 - Glove-hand contact by a food handler/worker/preparer who is suspected to be infectious (e.g., with ready-to-eat-food)
 - C12 - Other mode of contamination (excluding cross contamination) by a food handler/worker/preparer who is suspected to be infectious
 - C13 - Foods contaminated by non-food handler/worker/preparer who is suspected to be infectious
 - C14 - Storage in contaminated environment (e.g., storeroom, refrigerator)
 - C15 - Other source of contamination (please describe)
 - P1 - Food preparation practices that support proliferation of pathogens (during food preparation)
 - P2 - No attempt was made to control the temperature of implicated food or the length of time food was out of temperature control (during food service or display of food)
 - P3 - Improper adherence of approved plan to use time as a public health control
 - P4 - Improper cold holding due to malfunctioning refrigeration equipment
 - P5 - Improper cold holding due to an improper procedure or protocol
 - P6 - Improper hot holding due to malfunctioning equipment
 - P7 - Improper hot holding due to improper procedure or protocol
 - P8 - Improper/slow cooling
 - P9 - Prolonged cold storage
 - P10 - Inadequate modified atmosphere packaging (e.g., vacuum-packed fish, salad in gas-flushed bag)
 - P11 - Inadequate processing (e.g., acidification, water activity, fermentation)
 - P12 - Other situations that promote or allow microbial growth or toxic production (please describe)
 - S1 - Insufficient time and/or temperature during cooking/heat processing (e.g., roasted meats/poultry, canned foods, pasteurization)
 - S2 - Insufficient time and/or temperature during reheating (e.g., sauces, roasts)
 - S3 - Insufficient time and/or temperature control during freezing
 - S4 - Insufficient or improper use of chemical processes designed for pathogen destruction
 - S5 - Other process failures that permit the agent to survive (please describe)

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Establishment

- 5) Number of visits to the establishment to complete this environmental assessment _____
- 6) Number of contacts with the establishment other than visits (phone calls, interviews with staff, email, etc.) to complete this environmental assessment: _____
- 7) If applicable, how many critical violations/priority items/priority foundation items were noted during the last routine inspection? _____
- 8) Was a translator needed to communicate with the manager or staff during the environmental assessment? Yes No

Manager Interview

- 9) How long was the interview(s)? _____
- 10) Approximately how many meals are served here daily? _____
- 11) What is the establishment's busiest day? _____
- 12) Are any foods prepared or partially prepared at a commissary or other location? _____

Observation

- 13) How long was the observation(s)? _____

EA Form Feedback

- 14) How easy was the online environmental assessment form to use? Very Easy Somewhat Easy Not Easy Somewhat Difficult Very Difficult
- 15) How useful has the online EA form been for you? Very Easy Somewhat Easy Not Easy Somewhat Difficult Very Difficult
- 16) How likely are you to use this form by default in the future? Very Easy Somewhat Easy Not Easy Somewhat Difficult Very Difficult
- 17) Please provide your thoughts or feedback on the EA form to help us improve this tool in the future. _____

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