

**Attachment 1- EHS-Net Cooling Study: Data Collection Instrument**

**Part I:**

Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: CDC/ATSDR Information Collection Review Office, MS D-74; 1600 Clifton Road NE, Atlanta, Ga. 30333; ATTN: PRA (0920-0792)

**Manager Interview**

**1. Does this establishment cool heat-processed potentially hazardous foods?**

- Yes
- No (*End evaluation*)
- Unsure
- Refused

**2. Which one of the options below best describes the menu for this establishment?**

- American (non-ethnic)
- Chinese
- French
- Italian
- Japanese
- Mexican
- Thai
- Other (*Please describe*): \_\_\_\_\_

**3. Is this an independent establishment or a chain establishment?**

- Independent
- Chain
- Unsure
- Refused

**4. Approximately how many meals are served here daily? \_\_\_\_\_**  Unsure  
 Refused

**5. Approximately how long have you been a kitchen manager here? \_\_\_\_\_**  Unsure  
 Refused

**6. Including yourself, how many kitchen managers do you have? \_\_\_\_\_**  Unsure  
 Refused

**7. How many managers speak the following languages as their *primary* language?**

- English \_\_\_\_\_
- Spanish \_\_\_\_\_
- Chinese \_\_\_\_\_
- Other (*describe*) \_\_\_\_\_
- Unsure
- Refused

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8. Have any kitchen managers received food safety training? This training can be a course or a class, or it can be training that occurs on the job.

- Yes
- No (*Skip to # 12*)
- Unsure (*Skip to # 12*)
- Refused (*Skip to # 12*)

9. Did the food safety training include information on how to properly cool potentially hazardous foods?

- Yes
- No
- Unsure
- Refused

10. Does this establishment require kitchen manager food safety certification?

- Yes
- No
- Unsure
- Refused

11. Are any kitchen managers food safety certified?

- Yes
- No
- Unsure
- Refused

12. How many food workers do you have total? \_\_\_\_\_  Unsure  
 Refused

13. Do any food workers receive food safety training? This training can be a course or a class, or it can be training that occurs on the job.

- Yes
- No (*Skip to #16*)
- Unsure (*Skip to #16*)
- Refused (*Skip to #16*)

14. How many food workers have had food safety training? \_\_\_\_\_  Unsure  
 Refused

15. Did the food safety training include information on how to properly cool potentially hazardous foods?

- Yes
- No
- Unsure
- Refused

16. How many food workers speak the following languages as their *primary* language?

- English \_\_\_\_\_
- Spanish \_\_\_\_\_
- Chinese \_\_\_\_\_
- Other (*describe*) \_\_\_\_\_
- Unsure
- Refused

17. What is the language spoken most often in the kitchen?

- English
- Spanish
- Chinese
- Other (*describe*) \_\_\_\_\_
- Unsure
- Refused

18. Does this establishment use an instrument to check food temperatures?

- Yes
- No (*Skip to # 23*)
- Unsure (*Skip to # 23*)
- Refused (*Skip to # 23*)

19. What type of instrument is used to check food temperatures? (*Check all that apply*)

- Digital/thermocouple probe thermometer
- Bi-metallic probe thermometer
- Computerized Data logger
- Infrared/laser thermometer
- Other (*describe*) \_\_\_\_\_
- Unsure
- Refused

20. Is anyone trained to check the accuracy of these instruments?

- Yes
- No
- Unsure
- Refused

21. Who is trained to check the accuracy of these instruments? (*Check all that apply*)

- Food worker
- Manager
- Other (*describe*) \_\_\_\_\_
- Unsure
- Refused

22. How often are these instruments checked for accuracy?

- Never
- At least once a day
- At least once a week
- At least once a month
- Other (*Please describe*) \_\_\_\_\_
- Unsure
- Refused

23. In your state or county, what is the required cooling time and temperature?

- Two-stage (135°F to 70° F in ≤ 2 hours; then 70°F to ≤41° F in 4 additional hours or less)
- Two-stage (140°F to 70° F in ≤ 2 hours; then 70°F to ≤41° F in 4 additional hours or less)
- Single-stage (135° F to 41° F in 4 hours or less)
- Single-stage (140° F to 41° F in 4 hours or less)
- Single-stage (140° F to 45° F in 4 hours or less)
- Other \_\_\_\_\_
- Unsure
- Refused

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**24. What types of food are cooled?** *(Check all that apply)*

- |  |  |
|--|--|
| <input type="checkbox"/> Meat – large cuts       | <input type="checkbox"/> Pasta or noodles                          |
| <input type="checkbox"/> Meat – pieces/grinds    | <input type="checkbox"/> Casseroles (such as egg bakes or lasagna) |
| <input type="checkbox"/> Poultry – whole         | <input type="checkbox"/> Rice                                      |
| <input type="checkbox"/> Poultry – pieces/grinds | <input type="checkbox"/> Cooked vegetables                         |
| <input type="checkbox"/> Seafood                 | <input type="checkbox"/> Beans (whole)                             |
| <input type="checkbox"/> Soups                   | <input type="checkbox"/> Beans (refried)                           |
| <input type="checkbox"/> Stews                   | <input type="checkbox"/> Other _____                               |
| <input type="checkbox"/> Gravies                 | <input type="radio"/> Unsure                                       |
| <input type="checkbox"/> Sauces                  | <input type="radio"/> Refused                                      |
| <input type="checkbox"/> Pudding or custard      |  |

**25. Who is responsible for cooling foods?** *(Check all that apply)*

- Food worker
- Manager
- Other *(describe)* \_\_\_\_\_
- Unsure
- Refused

**26. Do you have formal procedures or processes for cooling potentially hazardous foods?**

- Yes
- No *(Skip to #30)*
- Unsure *(Skip to #30)*
- Refused *(Skip to #30)*

**27. Are the procedures or processes written?**

- Yes
- No
- Unsure
- Refused

**28. Have employees been trained on the procedures or processes?**

- Yes
- No
- Unsure
- Refused

**29. Are the cooling procedures tested and verified? Testing and verification are the processes of measuring temperatures throughout the cooling cycle to ensure the cooling method works.**

- Yes
- No
- Unsure
- Refused

**30. What types of methods are used to cool foods?** (Check all that apply)

- (A) Shallow container in **walk-in cooler** ( $\leq 3''$  container and/or product depth)
  - (B) Deep container in **walk-in cooler** ( $>3''$  container and/or product depth)
  - (C) Shallow container in **reach-in cooler** ( $\leq 3''$  container and/or product depth)
  - (D) Deep container in **reach-in cooler** ( $>3''$  container and/or product depth)
  - (E) Ice bath
  - (F) Ice wand
  - (G) Blast chiller
  - (H) Freezer
  - (I) Ice or frozen food added as an ingredient
  - (J) Water and/or ice used as a cooling medium
  - (K) Leaving food at room/ambient temperature
  - (L) Other (describe) \_\_\_\_\_
  - Combination method(s) 1: \_\_\_\_\_ (e.g: K, E, A)  
2: \_\_\_\_\_  
3: \_\_\_\_\_  
4: \_\_\_\_\_
- Unsure  
 Refused

**31. Are times or temperatures monitored during cooling processes? In other words, do you take repeated temperatures of the food or watch the time during cooling?**

- Yes
- No (Skip to # 34)
- Unsure (Skip to # 34)
- Refused (Skip to # 34)

**32. How often are cooling processes monitored?** (Read answers aloud)

- Always
- Often
- Sometimes
- Rarely
- Unsure
- Refused

**33. How are cooling processes monitored?** (Check all that apply)

- Probe thermometer
- Data logging thermometer
- Sight only
- Touch only
- Time only
- Other \_\_\_\_\_
- Unsure
- Refused

**34. Are cooling time and temperature measurements recorded?**

- Yes
- No
- Unsure
- Refused

**35. What corrective actions are taken if improper cooling processes are identified?**

- Food is reheated then cooled again
- Food is discarded
- No action is taken
- Other (describe) \_\_\_\_\_
- Unsure
- Refused

**36. Are you familiar with HACCP?**

- Yes
- No
- Unsure
- Refused

**Part II: Environmentalist section: Answered by data collector.**

**1. Establishment Type:**

- Prep Serve
- Cook Serve
- Complex

**2. Is this establishment**

- a. ...a sit down establishment?  
 Yes  No  Unsure
- b. ...a buffet establishment?  
 Yes  No  Unsure
- c. ...a quick-service or fast-food establishment?  
 Yes  No  Unsure
- d. ...a caterer?  
 Yes  No  Unsure
- e. ...a banquet hall?  
 Yes  No  Unsure
- f. ...an institutional foodservice?  
 Yes  No  Unsure

**3. What is the requirement for cooling cooked potentially hazardous foods in this county?**

- Two-stage (135°F to 70° F in ≤ 2 hours; then 70°F to ≤ 41° F in 4 additional hours or less)
- Two-stage (140°F to 70° F in ≤ 2 hours; then 70°F to ≤ 41° F in 4 additional hours or less)
- Single-stage (135° F to 41° F in 4 hours or less)
- Single-stage (140° F to 41° F in 4 hours or less)
- Single-stage (140° F to 45° F in 4 hours or less)
- Other \_\_\_\_\_

**Part III: Observation**

**Are foods being cooled during the observation?**

- Yes
- Unsure
- No (End evaluation)
- Missing

It is possible that you will observe more than one food item being cooled in a restaurant. If so, you will complete questions 1-4 for each food item observed.

**1. What type of food is being observed?**

- Meat – large cuts
- Meat – pieces/grinds
- Poultry – whole
- Poultry – pieces/grinds
- Seafood
- Soups
- Stews
- Gravies
- Sauces
- Pudding or custard
- Pasta or noodles
- Casseroles (egg bakes, lasagna)
- Rice
- Cooked vegetables
- Beans (whole)
- Beans (refried)
- Chili
- Other \_\_\_\_\_
- Unsure
- Missing

**2. What time did the observation period begin?**

- \_\_\_\_\_ AM / PM
- Unsure
- Missing

**3. What is the temperature of the food at the beginning of observation?**

- \_\_\_\_\_ °F
- Unsure
- Missing

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Complete questions 4a-c for each cooling step you observe. If you observed more than one food item being cooled, you will need to complete this grid for each food item being cooled.

4a. Step number:	4b. Did you observe this step?	4c. Which method was used in this step? ( <i>Check all that apply</i> )
	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Missing	<input type="checkbox"/> Refrigeration <i>Answer</i> <i>questions 5-10</i> <input type="checkbox"/> Ice bath <i>Answer</i> <i>questions 11-13</i> <input type="checkbox"/> Ice wand <i>Answer</i> <i>questions 14-17</i> <input type="checkbox"/> Blast chiller <i>Answer</i> <i>question 18</i> <input type="checkbox"/> Ice as ingredient <i>Answer</i> <i>question 19</i> <input type="checkbox"/> Room temperature <input type="checkbox"/> Other: _____ <input type="checkbox"/> Missing
	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Missing	<input type="checkbox"/> Refrigeration <i>Answer</i> <i>questions 5-10</i> <input type="checkbox"/> Ice bath <i>Answer</i> <i>questions 11-13</i> <input type="checkbox"/> Ice wand <i>Answer</i> <i>questions 14-17</i> <input type="checkbox"/> Blast chiller <i>Answer</i> <i>question 18</i> <input type="checkbox"/> Ice as ingredient <i>Answer</i> <i>question 19</i> <input type="checkbox"/> Room temperature <input type="checkbox"/> Other: _____ <input type="checkbox"/> Missing
	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Missing	<input type="checkbox"/> Refrigeration <i>Answer</i> <i>questions 5-10</i> <input type="checkbox"/> Ice bath <i>Answer</i> <i>questions 11-13</i> <input type="checkbox"/> Ice wand <i>Answer</i> <i>questions 14-17</i> <input type="checkbox"/> Blast chiller <i>Answer</i> <i>question 18</i> <input type="checkbox"/> Ice as ingredient <i>Answer</i> <i>question 19</i> <input type="checkbox"/> Room temperature <input type="checkbox"/> Other: _____ <input type="checkbox"/> Missing
	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Missing	<input type="checkbox"/> Refrigeration <i>Answer</i> <i>questions 5-10</i> <input type="checkbox"/> Ice bath <i>Answer</i> <i>questions 11-13</i> <input type="checkbox"/> Ice wand <i>Answer</i> <i>questions 14-17</i> <input type="checkbox"/> Blast chiller <i>Answer</i> <i>question 18</i> <input type="checkbox"/> Ice as ingredient <i>Answer</i> <i>question 19</i> <input type="checkbox"/> Room temperature <input type="checkbox"/> Other: _____ <input type="checkbox"/> Missing
	<input type="radio"/> Yes	<input type="checkbox"/> Refrigeration <i>Answer</i>



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<input type="radio"/> <input type="radio"/>	No Missing	<input type="checkbox"/> <i>questions 5-10</i> Ice bath <i>Answer</i> <input type="checkbox"/> <i>questions 11-13</i> Ice wand <i>Answer</i> <input type="checkbox"/> <i>questions 14-17</i> Blast chiller <i>Answer</i> <input type="checkbox"/> <i>question 18</i> Ice as ingredient <i>Answer</i> <input type="checkbox"/> <i>question 19</i> Room temperature <i>Answer</i> <input type="checkbox"/> <i>question 20-25</i> Other: _____ <input type="checkbox"/> Missing
<input type="radio"/> <input type="radio"/> <input type="radio"/>	Yes No Missing	<input type="checkbox"/> Refrigeration <i>Answer</i> <input type="checkbox"/> <i>questions 5-10</i> Ice bath <i>Answer</i> <input type="checkbox"/> <i>questions 11-13</i> Ice wand <i>Answer</i> <input type="checkbox"/> <i>questions 14-17</i> Blast chiller <i>Answer</i> <input type="checkbox"/> <i>question 18</i> Ice as ingredient <i>Answer</i> <input type="checkbox"/> <i>question 19</i> Room temperature <input type="checkbox"/> Other: _____ <input type="checkbox"/> Missing

## Attachment 1- EHS-Net Cooling Study: Data Collection Instrument

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### **Refrigeration**

Answer questions 5-10 for each step in which refrigeration was a cooling method. If you observed more than one cooling step with refrigeration, you will need to answer these questions for each refrigeration cooling step.

**5. What type of cooling unit was used?**

- Walk-in cooler
- Reach-in cooler
- Walk-in freezer
- Reach-in freezer
- Unsure
- Missing

**6. What was the ambient temperature of the cooling unit?**

- \_\_\_\_\_ °F
- Unsure
- Missing

**7. What was the observed food depth while in cooling?**

- ≤ 3 inches
- > 3 inches
- Unsure
- Missing

**8. Was the product ventilated (uncovered or loosely covered) during cooling?**

- Yes
- No
- Unsure
- Missing

**9. Were multiple food containers stacked while in cooling?**

- Yes
- No
- Unsure
- Missing

**10. Was open air space provided around the top and sides of the container(s) while in cooling?  
(Select Yes if the air space around the entire sides and top the food container is ≥ 3".)**

- Yes
- No
- Unsure
- Missing

### **Ice Bath**

Answer questions 11-13 for each step in which an ice bath was a cooling method. If you observed more than one cooling step with an ice bath, you will need to answer these questions for each ice bath step.

**11. Was ice present in the ice bath?**

- Yes
- No (Skip to question 13)
- Unsure
- Missing

**12. Were ice and water filled to the top level of the food?**

- Yes
- No
- Unsure
- Missing

**13. Was the food stirred at any time during the observation?**

- Yes
- No
- Unsure
- Missing

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### **Ice Wand**

Answer questions 14-17 for each step in which an ice wand was a cooling method. If you observed more than one cooling step with an ice wand, you will need to answer these questions for each ice wand cooling step.

**14. Was the ice wand inserted into the food?**

- Yes
- No
- Unsure
- Missing

**15. Was any ice present inside the ice wand during the observation?**

- Yes
- No
- There was no liquid in the ice wand while in use.
- Unsure
- Missing

**16. Was the food stirred at any time during the observation?**

- Yes
- No
- Unsure
- Missing

**17. Was the ice wand replaced with a new ice wand at any time during the observation?**

- Yes
- No
- Unsure
- Missing

### **Blast chiller**

Answer question 18 for each step in which a blast chiller was a cooling method. If you observed more than one cooling step with a blast chiller, you will need to answer these questions for each blast chiller step.

**18. What was the ambient temperature within the blast chiller at the beginning of the observation period?**

- \_\_\_\_\_ °F
- Unsure
- Missing

### **Ice or frozen food as an ingredient**

Answer question 19 for each step in which ice or frozen food as an ingredient was a cooling method. If you observed more than one cooling step with ice as an ingredient, you will need to answer this question for each ice as an ingredient cooling step.

**19. Was ice or frozen food added to the food during the observation?**

- Yes
- No
- Unsure
- Missing

**Attachment 1- EHS-Net Cooling Practices Study: Observation**

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**Observation Conclusion**

Answer questions 20-25 for each food item observed.

**20. What was the internal temperature of the food at the end of the observation period?**

- \_\_\_\_\_ °F
- Unsure
- Missing

**21. What time did the observation end?**

- \_\_\_\_\_
- Unsure
- Missing

**22. During the observation, did the worker(s) monitor cooling time or temperature?**

- Yes                       No (*Skip to question 25*)
- Unsure                     Missing

**23. How did the worker(s) monitor cooling time or temperature?**

- Touch only                                       Approximated time w/o using a timer or clock
- Probe thermometer                             Noted time on clock
- Data logging thermometer                  Used a timer / alarm
- Other \_\_\_\_\_
- Unsure     Refused

**24. Did the worker(s) document/record cooling times or temperatures?**

- Yes                           Unsure
- No                              Missing

**25. List any practices observed that may have limited proper cooling not mentioned or described above.**

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