SAN BERNARDINO COUNTY

Public Health
Environmental Health Services

www.SBCounty.gov

Chill Out: How to Cool Food Safely

Amanda N. Gaspard, MPH, REHS, CHEP

Is this an approved method of cooling food?

Cooling Times and Temperatures

Potentially hazardous food (PHF) must be cooled rapidly:

- From 135F to 70F within **two (2) hours**
- From 70F to 41F or below within **four (4) hours**

*You have a total of **six (6) hours** to cool PHF; however, the time/temperature conditions listed above must be met. Otherwise, you will have to discard the food.*

Cooling Methods

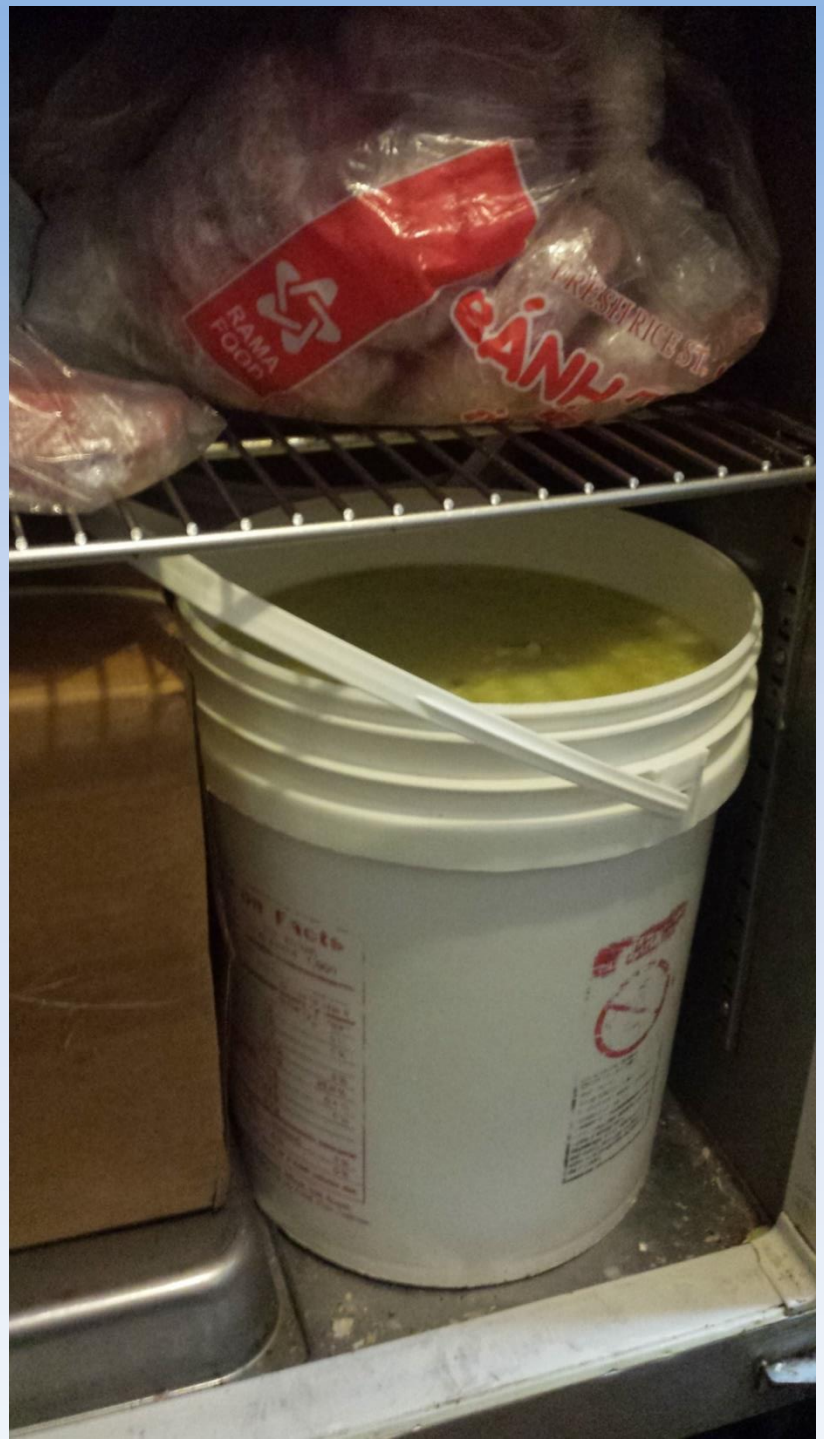
You must use an approved method to cool food. Approved methods include:

- Placing the food in shallow pans.
- Separating the food into smaller or thinner portions.
- Using rapid cooling equipment.
- Using containers that facilitate heat transfer.
- Adding ice as an ingredient.
- Using ice paddles.
- Inserting appropriately designed containers in an ice bath and stirring frequently.
- In accordance with an HACCP plan.

Cooling Methods, cont'd.

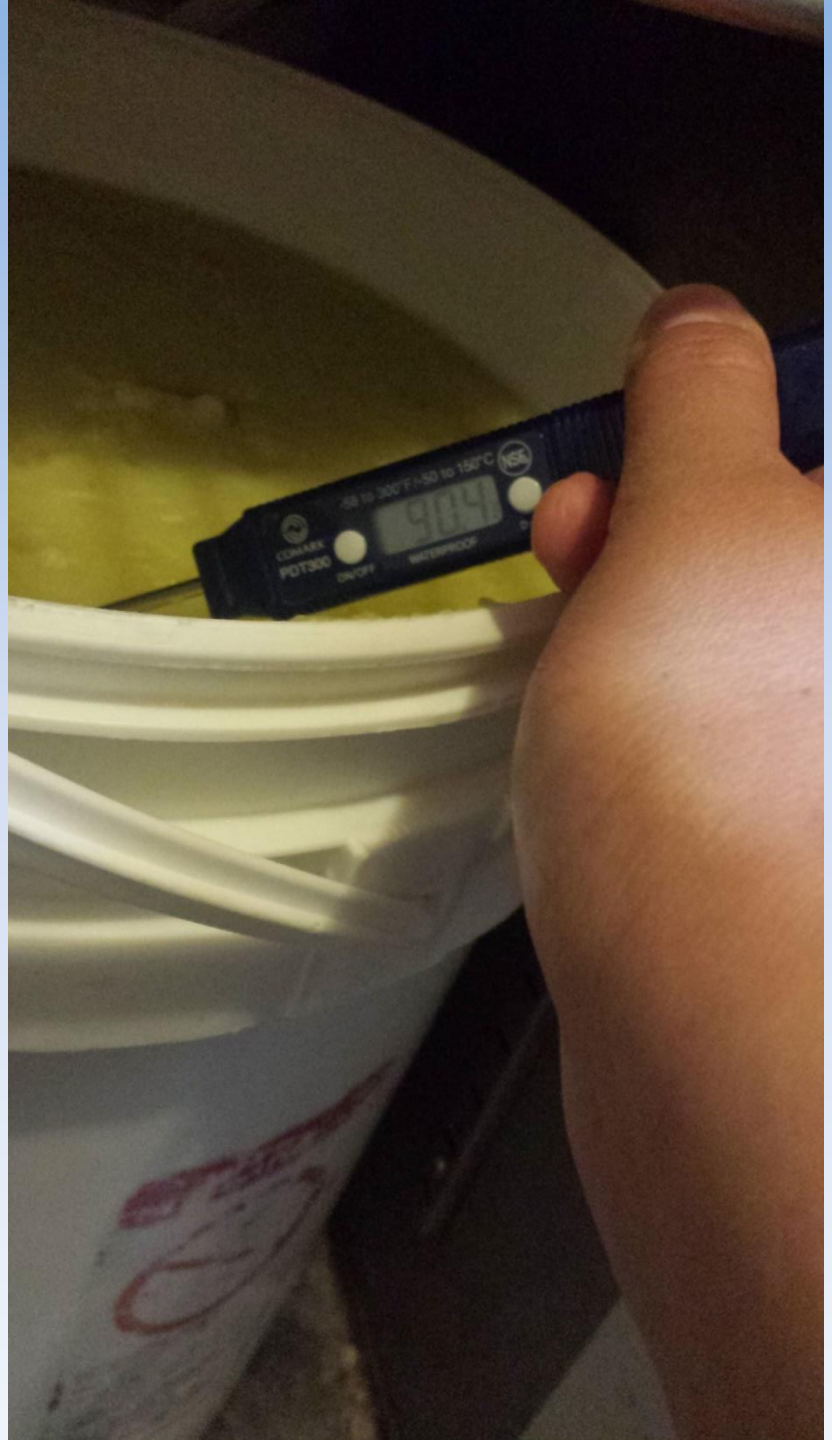
When placing food in the refrigerator to cool, containers should be loosely covered or uncovered if protected from overhead contamination, in order to facilitate heat transfer from the surface of the food.

What cooling method is being used here?



Depth of container:

~11 inches


PDT300
ON/OFF
WATERPROOF

Separating Food Into Smaller / Thinner Portions

Ice Bath

- Good for soups and sauces
- Ice must reach up to the level of the food.

Ice Bath, cont'd.

Rapid Cooling Equipment - Chill Blasters

Ice Paddles

- Good for soups, sauces, beans, etc.
- Do **not** put ice paddle into the food before it reaches 135F.

Ice Paddles, cont'd.

Adding Ice As An Ingredient

What's wrong with this picture?

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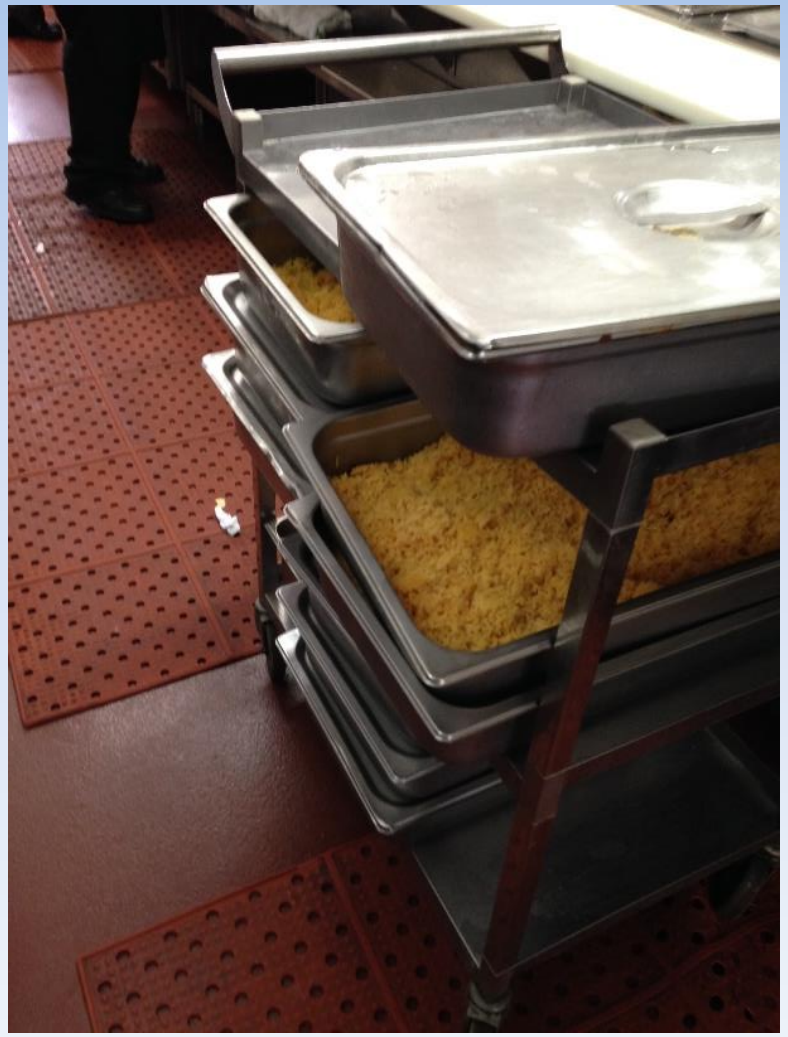

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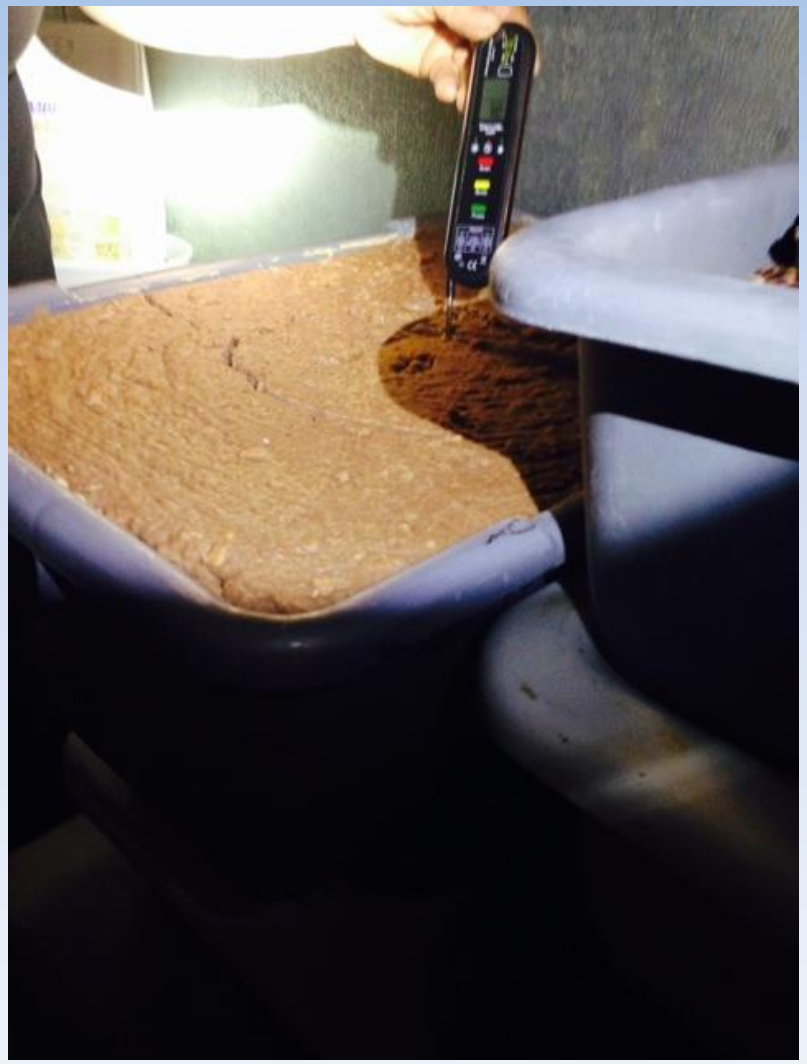

What's wrong with this picture?

Other Cooling Considerations

“Potentially hazardous food shall be cooled within four hours to 41°F or less if prepared from ingredients at ambient temperature, such as reconstituted foods and canned tuna.”

Recommendations:

- Refrigerate cans of tuna before opening them.
- Refrigerate whole tomatoes before cutting them.

Cooling Logs

COUNTY OF SAN BERNARDINO
Environmental Health Services
DEPARTMENT OF PUBLIC HEALTH

www.sbcounty.gov/dehs (800) 442-2283

COOLING LOG SHEET

DATE	INITIALS	TYPE OF FOOD	START TIME (Food at 135°F)	TEMPERATURE OF FOOD AFTER COOLING FOR: 1 HOUR	2 HOURS (at least 70°F)	3 HOURS	4 HOURS	5 HOURS	6 HOURS (at least 41°F)	CORRECTIVE ACTION TAKEN

- The cooling process should begin when the food has cooled down to approximately 135°F but not lower than 135°F.
- Rapidly cool food from **135°F to 70°F within 2 hours** .**Total cooling time from 135°F to 41°F must be less than 6 hours.**
- To ensure proper cooling of food, use shallow metal pans and stir every 15 minutes.
- To further assist in the cooling process, use ice paddles, and/or ice baths.
- When pans of hot food are placed in the refrigerator, do not stack pans on top of one another or on top of any food containers already in the refrigerator.

Recap

- At what temperature do you “start the clock” for cooling?
- How long do you have to cool food to 70F?
- How long do you have to cool food from 70F to 41?
- What do you do with food that is improperly cooled?

Questions?

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Cal Code 114002 – reference for proper cooling methods