

FOOD AND NUTRITION PROCEDURES

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Reviewed	July 2008
Effective	July 2006
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Miami-Dade County Public Schools

Subject: USING AND CALIBRATING THERMOMETERS

For Action By: PRINCIPALS, FOOD SERVICE ADMINISTRATORS, FOOD SERVICE MANAGERS, ALL FOOD SERVICE EMPLOYEES

Refer Questions To: FOOD SERVICE ADMINISTRATORS
DEPARTMENT OF FOOD AND NUTRITION

PURPOSE: To prevent foodborne illness by ensuring that the appropriate type of thermometer is used to measure internal product temperatures and that thermometers used are correctly calibrated for accuracy.

SCOPE: This procedure applies to foodservice employees who prepare, cook, and cool food.

KEY WORDS: Thermometers, Calibration

INSTRUCTIONS:

1. Train foodservice employees on using the procedures in this Standard Operating Procedure.
2. Follow the food thermometer manufacturer's instructions and selected calibration method. Use a food thermometer that measures temperatures from 0 °F (-18 °C) to 220 °F (104 °C) and is appropriate for the temperature being taken.
3. Have food thermometers easily accessible to foodservice employees during all hours of operation.
4. Clean and sanitize food thermometers before each use. Refer to the Cleaning and Sanitizing Food Contact Surfaces SOP for the proper procedure to follow.
5. Store food thermometers in an area that is clean and not subject to contamination.

MONITORING:

1. Foodservice employees will use either the ice-point method or boiling-point method to verify the accuracy of food thermometers. This is known as calibration of the thermometer.

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HOW TO CALIBRATE THERMOMETERS:

Thermometers must be calibrated regularly to ensure that product temperatures are correct.

Ice Point Method:

This method is more accurate and easier to do.

- Fill a large glass with crushed ice. Add clean tap water until the glass is full and stir well.
- Put the thermometer stem or probe in the ice water mixture so that the entire sensing area is submerged. Do not let the stem of the thermometer or probe touch the sides or bottom of the glass. Wait at least 30 seconds or until indicator stops moving.
- With the stem of the thermometer or probe still in the ice water mixture, use a wrench to turn the adjusting nut until the thermometer reads 32°F (0° C). If calibrating a digital thermometer, press the reset button to automatically calibrate the thermometer.

Boiling Point Method:

- Bring clean tap water to a boil in a deep pan.
- Put the thermometer stem or probe into the boiling water so that the sending area is completely submerged. Do not let the stem or probe touch the bottom or sides of the pan. Wait at least 30 seconds or until indicator stops moving.
- With the thermometer stem or probe still in the water, use a wrench to turn the adjusting nut until the thermometer reads 212°F (100°C). If calibrating a digital thermometer, press the reset button to automatically calibrate the thermometer.

2. Foodservice employees will check the accuracy of the food thermometers:

- At regular intervals (at least once per week)
- If dropped
- If used to measure extreme temperatures, such as in an oven
- Whenever accuracy is in question

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SUBJECT: USING AND CALIBRATING THERMOMETERS (Continued)

CORRECTIVE ACTION:

1. Retrain any foodservice employee found not following the procedures in this SOP.
2. For an inaccurate, bimetallic, dial-faced thermometer, adjust the temperature by turning the dial while securing the calibration nut (located just under or below the dial) with pliers or a wrench.
3. For an inaccurate, digital thermometer with a reset button, adjust the thermometer according to manufacturer's instructions.
4. If an inaccurate thermometer cannot be adjusted on-site, discontinue using it, and follow manufacturer's instructions for having the thermometer calibrated.
5. Retrain employees who are using or calibrating food thermometers improperly.

VERIFICATION AND RECORD KEEPING:

The Manager will verify that foodservice employees are using and calibrating thermometers properly by making visual observations of the employees during the calibration process and during operating hours. The Manager will complete the Food Safety Checklist weekly. The Coordinator will review the Food Safety Checklist to verify that monitoring is being conducted. The Food Safety Checklist is to be kept on file for a minimum of one (1) year.