



**Public Health**  
Prevent. Promote. Protect.

## JO DAVIESS COUNTY HEALTH DEPARTMENT

9483 US RT. 20 WEST • P. O. BOX 318 • GALENA, ILLINOIS 61036 • (815) 777-0263

### HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)

#### Maintaining Food Temperatures With Accurate Thermometers

**GOAL:** All staff working in the food service shall have access to a long stem thermometer, and training in how to take temperatures of foods correctly. Accurate thermometers are important tool for insuring that potentially hazardous foods are not kept in the temperature **danger zone** (41 °F to 135 °F) for more then four hours.

**RECOMMENDATION:** As an essential part of your HACCP system, train employees on how and when to take temperatures and how to calibrate thermometers. Maintain temperature logs and take corrective action if products are not at proper temperatures.

#### TYPES OF THERMOMETERS USED TO MEASURE TEMPERATURE OF FOOD PRODUCTS:

##### **Bimetallic long-stem thermometer**

- Most common use in food service.
- Measures temperature through a metal stem, just past the dimple about 2 inches from the top, the dimple must be in the middle of the product to record a correct temperature reading of product. The reading dial is on top of unit.
- A calibration nut is located below the dial for adjusting the temperature.

##### **Digital thermometer**

- Similar to the bimetallic long-stem thermometer.
- Measures temperature through the metal tip at the end. It shows the temperature on the easy to read panel.
- Calibration is set at the factory, when a digital thermometer is out of calibration, it must be standardized to calibrated thermometers or discarded.

##### **Equipment thermometers**

- Found in refrigeration/freezers unit, hot-holding equipment and dishwashers.
- Thermometers designed for specific cooling processes, including candy, meat and deep-frying thermometers.

#### HOW TO USE A THERMOMETER TO CHECK TEMPERATURE:

- Clean soapy water; sanitize with an alcohol wipe or in a sanitizer solution of chlorine or quaternary ammonia.
- Solid foods insert thermometer in the thickest part of product, liquid foods such as soup stir periodically.

- Allow time for thermometer to stabilize.
- Wash and sanitize the thermometer between each product use.
- When checking food product delivery, it is recommended not to puncture the package, place the thermometer between two products to check temperature.
- Calibrate each thermometer frequently and after a thermometer has been dropped.

#### **CALIBRATING A THERMOMETER:**

- Place thermometer in glass of ice water, stirring water frequently.
- After at least three minutes, the thermometer should read 32 ° F.

#### **Corrective action to take if thermometer cannot reach 32 ° F**

- Leave thermometer in ice water.
- Using pliers, 7/16 inch wrench, or a adjustable wrench, turn the adjustable nut on the back of thermometer until needle reads 32 ° F (you may have to add more ice). Wait three minutes. The thermometer should reach 32 ° F (if not repeat corrective action, or replace your thermometer).

**REASON:** A thermometer is extremely important tool for regulating food product temperatures and how long potentially hazardous foods remain in the temperature **danger zone** 41 ° F-135 ° F.

**REMEMBER:** Management must make sure that thermometers are available and easily accessible to employees and that they are trained properly on how to use thermometers.

#### **IMPORTANT TEMPERATURES TO REMEMBER**

DANGER ZONE 41° F – 135 ° F

FROZEN FOODS KEPT AT 0 ° F OR LOWER

COLD FOODS KEPT AT 41 ° F OR LOWER

HOT FOODS KEPT AT 135 ° F OR HIGHER

REHEAT LEFT-OVER FOODS RAPIDLY TO 165 ° F BEFORE SERVING