THERMOMETER CALIBRATION

Public Health Division | Food & Lodging | 600 East Boulevard Ave, Dept. 325 | Bismarck, ND 58505-0250 | hhs.nd.gov | 701-328-1291

THERMOMETER CALIBRATION PROCEDURE

Food temperature measuring devices such as thermometers shall be accurate to ± 2°F. In order to ensure accuracy, food temperature measuring devices shall be calibrated regularly and in accordance with the manufacturer's recommendations.

Thermometers intended for measuring hot temperature items shall be calibrated in boiling water, while those used for cold temperatures shall be calibrated in ice water.

Calibrating Thermometers using Boiling Water

1. Fill a heat-safe container with water.
2. Heat water until it has reached a rolling boil.
3. Place thermometer in the boiling water so the sensing area is completely submerged.
4. Wait 30 seconds or until the readout is stable.
    a. Do not let the sensing area touch the bottom or sides of the container.
    b. The sensing area must always remain in the water.
5. The temperature of the boiling water should read 212°F.
    a. If the temperature does not read 212°F, consult manufacturer's instructions on how to adjust the thermometer readout.
6. Repeat steps routinely, especially after thermometer is dropped or after extreme temperature change.

Calibrating Thermometers using Ice Water

1. Fill a large container with crushed ice.
2. Add cold water to the container until the container is full.
3. Wait 5 minutes then stir well.
4. Place thermometer in the ice so the sensing area is completely submerged.
5. Wait 30 seconds or until the readout is stable.
    a. Do not let the sensing area touch the bottom or sides of the container.
    b. The sensing area must always remain in the water.
6. The temperature of the ice water should read 32°F.
    a. If the temperature does not read 32°F, consult manufacturer's instructions on how to adjust the thermometer readout.
7. Repeat steps routinely, especially after thermometer is dropped or after extreme temperature change.

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Keep a Thermometer Calibration Log to ensure a designated food worker records the calibration temperature and corrective action is taken each time a thermometer is calibrated. Follow the establishment's procedures for how often to calibrate thermometers and how long to retain the Thermometer Calibration Log.

Thermometer Calibration Log

Date & Initials	Thermometer ID	Method Used (Ice Slurry or Boiling Water)	Thermometer Reading	Accurate (Yes or No)	Corrective Action	Verified by PIC (Initials)