

SOP for Calibration of Thermometer

Processor or Designee will calibrate the thermometers prior to use by using the specifications of the manufacture of the equipment (this will vary) or the following procedures will be implemented.

Each thermometer will be assigned an ID number.

Thermometers intended for measuring higher temperature items, such as cooked product, will be calibrated in hot water, while those used for taking lower temperatures will be calibrated in ice water. All thermometers will be calibrated within + or - 2 degrees F.

Thermometers in use will be checked against a certified thermometer during calibration, if available. Otherwise, all thermometers will be calibrated either against each other, or against a thermometer that is used only during calibration. These methods would require a minimum of three thermometers for accuracy. Dial thermometers will not be calibrated on both the high and low ends on the range it is intended to read to assure accuracy.

Calibration in ice water:

1. Add crushed ice and distilled water to a clean container to form a watery slush.
2. Place thermometer probe into slush for at least one minute, taking care to not let the probe contact the container.
3. If the thermometer does not read between 30 degrees and 34 degrees F., adjust to 32 degrees. Nonadjustable thermometers will be removed from use until they have been professionally serviced. Thermometers that have been adjusted for 3 consecutive months will be replaced.
4. Record the results, using actual values, on the thermometer calibration log, along with the date and initials of the person performing the calibration procedure.

Calibration in hot water:

1. Heat a clean container of water to a temperature range that is used for cooked product. Running clean water through the coffee maker gives a water temperature of approximately 145 degrees F. Another option is to bring a clean container of water to a rolling boil.
2. Place the thermometer probe into the hot water, along with the certified thermometer and/or reference thermometer, for at least one minute, taking care not to let the probe contact the container.
3. If the test thermometer does not read within + or - 2 degrees of the reference thermometer, adjust accordingly. Nonadjustable thermometers will

be removed from use until they have been professionally serviced. Thermometers that have been adjusted for 3 consecutive months will be replaced.

4. Record the results, using actual values, on the thermometer calibration log, along with the date and initials of the person performing the calibration procedure.

Thermometers that cannot be easily calibrated through direct immersion in either ice water or hot water can be calibrated by comparing readings with another calibrated thermometer. Thermometers that may be calibrated in this way include smokehouse probes and room temperature thermometers. When doing this, a recently calibrated thermometer will be used as the reference. Room temperature thermometers that are outside the + or - 2 degree F. range will be replaced. Smokehouse probes that are outside the + or - 2 degree F. range will be professionally serviced. Results will be recorded, using actual values, on the thermometer calibration log, along with the date and initials of the person performing the calibration procedure.

Thermometers will be calibrated at a frequency dependent on production volumes, and use of monitoring CCP values or SOP values. Any thermometer that has been dropped or abused will be taken out of service until it has been recalibrated. Any "loose" thermometers, or thermometers that have been out of calibration for 3 consecutive months, shall be disposed of.

