

TENNESSEE BUREAU OF INVESTIGATION

Forensic Services Division

Toxicology Quality Assurance and Procedures Manual

6.11 Refrigerators and Freezers



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Refrigerators and freezers are used within the Toxicology Unit for storage of evidence, reference material, reference solutions, and reagents.

6.11.1 Weekly

6.11.1.1 Temperatures of each refrigerator/freezer shall be recorded weekly by reading either a built-in thermometer or a thermometer placed inside the unit. The acceptable ranges are as follows:

- Refrigerators: 2.0 – 8.0°C
- Freezers: -23.0 - -13.0°C

6.11.1.2 If the temperatures do not meet the above criteria, the temperature settings shall be readjusted.

6.11.1.3 If readjustment does not resolve the issue, the contents shall be removed and use shall be discontinued until repaired or regulated.

6.11.2 Annually

6.11.2.1 Each built-in refrigerator/freezer thermometer shall be checked annually to verify accuracy using a NIST certified or traceable thermometer or a general thermometer (see Thermometers, section 6.10).

6.11.2.2 The built-in refrigerator/freezer thermometer shall be checked annually by comparison to the NIST thermometer at the appropriate operating temperature of each unit. This shall be done by placing the NIST certified or traceable thermometer or general thermometer in the unit for approximately 10 minutes and recording both temperatures.

6.11.2.3 Each unit thermometer should read within $\pm 2^{\circ}\text{C}$ of the NIST thermometer reading. If the unit thermometer does not meet this criterion, then it shall be repaired or replaced. A NIST certified or traceable thermometer or a general thermometer shall be used during this time period.