

Subject Pre-Operations Check of Radiation Detection Meters for Research Laboratories

Purpose To determine the operational condition of the portable instrument through performance testing.

References ANSI N323B-2003
Iowa Department of Public Health Calibration of Radiation Survey and Monitoring Instruments Regulatory Guide
[Iowa State University Radioactive Materials Safety Manual](#)
Iowa State University Radiation Safety Training for Material Users

Frequency A performance check shall be made prior to each use, during intermittent use conditions and should be done several times a day during continuous use.

Equipment Survey Meter
Assigned Check Source

Notes This procedure applies to all portable survey meters.

Hazard Control Measures None

Procedure

1. Select the correct instrument for the type of radiation measurement. Select a GM meter for beta radiation detection. Select a NaI scintillation meter for gamma radiation detection.
2. Verify that the meter has been calibrated within the last 365 day annual cycle. Today's date must be within the calibration period listed on the calibration tag on the instrument.
3. Verify that the meter is in good working condition: tight knobs and cables, unbroken bezel glass, undamaged detectors.
4. Verify the battery condition using the instruments battery check function. Batteries that do not pass this check must be replaced.
5. Verify that the instrument responds to radiation by measuring the check source attached to the side of the meter. The meter must detect the source.
6. If the meter does not successfully pass all of these checks, do not use the meter. Contact EH&S to discuss repair and determine another suitable detection method.

Revised by _____ Date _____

Approved by _____ Date _____