

**Activity:                      Radiation Protection Equipment Calibration**

1.0    Purpose:            This guideline provides a method to evaluate a plant's practices for radiation protection equipment calibration controls.

2.0    Scope: This guideline gives a means of assuring that calibrations on radiation protection equipment meet the applicable requirements.

3.0    References:

3.1    IEEE 498 - Calibration and Control of Measuring and Test Equipment Used in Nuclear Facilities

3.2    ANSI N323 - Radiation Protection Instrumentation Test and Calibration

4.0    Guidelines:

4.1    In preparation for and during the conduct of this surveillance:

E    Obtain and review implementing procedures, instructions and drawings governing this activity.

E    Prepare a guide or checklist using the selected items from this guideline.

E    Review past surveys, audits, surveillances and other evaluations/ assessments.

E    Ensure that checklists include, where applicable, actual observations of

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performance, general plant conditions, radiological work practices, housekeeping, work document controls and use, and safety practices.

**NOTE::** Refer to Guideline A.1, "General Quality Surveillance Guidance," for specific details on the attributes listed above.

4.2 Surveillance of Radiation Protection Equipment calibration should establish that, if properly implemented, a program exists to control the calibrations and consists of the following elements:

- A. Identification of instruments
- B. Calibration intervals
- C. Identification of calibration status
- D. Documentation of calibration results
- E. Acceptance criteria
- F. Control of test equipment used for calibration
- G. Evaluation of out-of-calibration or questionable results
- H. Control of radioactive sources used for calibration including NBS traceability where applicable
- I. Operational source checks

4.3 Select a sample of instruments being sure to include instruments of each major type.

- A. Verify that the instruments are being periodically calibrated and that the calibrations are current.
- B. Verify operability of instruments and proper alarm settings, if alarm settings are

applicable.

- C. Observe that test calibrations are being performed in accordance with plant procedures and requirements.
  - D. Verify that identified out-of-calibration conditions have been reviewed, evaluated, and appropriately dispositioned.
  - E. Verify that storage locations are not environmentally detrimental.
- 4.4 Verify that calibrations are being performed by qualified personnel.
- 4.5 Verify that ALARA conditions are taken into account as applicable within the calibration program.
- 4.6 For items calibrated at vendor facilities, verify that the required documentation exists to substantiate the calibration and that required inspections or tests were performed at the vendor facility on receipt at the plant site.

5.0 Other guidelines for consideration:

- 5.1 A.1, "General Quality Surveillance Guidance"