

ATTACHMENT B

PROCEDURE FOR ROUTINE TESTING OF SCINTILLATION COUNTER CRYSTALS TO DETERMINE DEGRADATION

Materials needed:

- a. Small check source consisting of gamma emitters such as Cs-137. Source should be small in size, i.e., about 0.2" x 0.25".
- b. Gamma pulse height analyzer (Ludlum makes small hand portable model).

Procedure

1. Remove detector assembly from monitor. Disconnect detector assembly cable from monitor.
2. Connect detector assembly cable to gamma pulse height analyzer.
3. Place source in position 1 as in Attachment A.
4. Determine pulse height analyser settings for maximum gamma peak. Record analyzer settings. Record count rate.
5. Repeat for each position 2 through 5, per Attachment A.

Interpretation

1. If PHA settings vary substantially between source locations, disassemble detector and visually inspect for cracks, bubbles, or discoloration.
2. If PHA settings or observed count rate vary substantially from values recorded during prior tests, disassemble detector and visually inspect.

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