

Sealed Radioactive Source Leak Testing Procedure for Non-Insertion Fixed Nuclear Gauges

This procedure is applicable for most **fixed, non-insertion style** fixed nuclear gauges. Please verify with the manufacturer's operating instructions of your particular device if these procedures are appropriate for the device design and construction. Stuart Hunt & Associates Ltd. makes no warranties on the suitability of this generic procedure for your particular radiation device. The procedure is provided as a convenience and reference only.

Procedure for Collecting Leak Test Sample

1. Prior to collecting a leak test sample complete all of the information required by the Leak Test Sampling Certificate and Leak Test Kit.
2. Whenever possible, close the source housing shutter before taking the leak test sample. If it is not possible to close the source housing shutter, caution must be observed to ensure that no body parts are placed in front of the primary radiation beam. Familiarity with the device being leak tested is essential. If absolutely uncertain, use a survey meter to confirm the shutter is in the closed position.
3. Take one (1) or two of (2) Q-tips supplied with the leak test kits. Moisten the cotton tip with water or cleaning solvent. The second Q-tip is present in case the first swap breaks.
4. Wipe all of the exterior seams for the source housing and accessible source housing interfaces, i.e. the source housing shutter rotating rod and handle. Pay particular attention to the shutter handle region where the shutter actuator rod enters the source housing. Place the Q-tip in the designated sample plastic sleeve.
5. Return the completed leak test kits and a signed copy of the Leak Test Sampling Certificate to Stuart Hunt and Associates laboratory for analysis. ***The time span between sampling and analysis should be kept as short as practical but shall not exceed ten (10) working days.***

CAUTION:

After a leak test sample has been collected treat the samples as being contaminated with radioactive material until proven otherwise.

RADIATION HAZARD WARNING:

Leak test samples are not to be taken from the source capsule. This practice will result in an unnecessary and potentially hazardous radiation dose being received by the leak test sample collector..