University of Tennessee Health Science Center
Radiation Safety Procedure
RSP 03 **Rev. 02/02/2018**

Laboratory Survey Procedure

Purpose: To outline laboratory survey and inspection procedure followed by the radiation safety office.

General: Surveys are performed by radiation safety office and associated staff. The purpose of the surveys is to determine the ambient radiological conditions in each authorized radiation lab. Survey reports are generated and filed in the radiation safety office. Any findings are addressed with laboratory staff and passed to the RSO for review and follow up.

Materials: Lab Coat and gloves
Survey meter (GM type calibrated in mR/hr)
Low energy scintillation probe or meter (if appropriate)
Other Radiation Instrumentation (e.g. ion chamber, alpha detector, etc…if appropriate)
Wipes or swabs and envelopes or vials
Survey Form, Pen, Clipboard
LSC (available)

Frequency: Monthly for all active research labs, or more frequently at the discretion of the RSO.

Procedure:

1. **Preparation**
   a) Review previous survey results.
   b) Check operation of survey meter(s).
   c) Review current isotope inventory of Authorized User.

2. **Survey**
   a) Check dose rates in representative areas of the laboratory with the GM, or other appropriate instrument. Areas should include but not be limited to:
      - Radioactive work areas.
      - Radioactive waste containers.
      - Storage locations for radioactive samples and stock solutions.
      - Laboratory equipment.
      - Other areas at the discretion of the surveyor.
   b) Scan representative laboratory surfaces and equipment with appropriate instrumentation to ascertain the presence of radioactive contamination. Areas should include but not be limited to:
      - Radioactive work areas.

- Floors in and around work areas.
- Radioactive waste containers.
- Storage locations for radioactive samples and stock solutions.
- Laboratory equipment.
- Desk areas and office equipment in area (computers, pens, chairs, etc…)
- Other areas at the discretion of the surveyor.

c) Wipe test representative laboratory surfaces and equipment for removable contamination. Wipes are to be counted in the radiation safety LSC. Areas should include but not be limited to:

- Radioactive work areas.
- Floors in and around work areas.
- Radioactive waste containers.
- Storage locations for radioactive samples and stock solutions.
- Laboratory equipment.
- Desk areas and office equipment in area (computers, pens, chairs, etc…)
- Other areas at the discretion of the surveyor.

3. **Inspection**
   a) Verify that all radioactive materials are secured from unauthorized access or removal (materials are secured or attended by trained personnel).
   b) Verify that waste, equipment, and contaminated items are properly labeled.
   c) Verify that personnel working with radioactive materials are wearing appropriate PPE and dosimetry (when required).
   d) Verify that inventory logs (yellow cards) are maintained.
   e) Verify that waste logs (waste tags) are maintained.
   f) If a GL device is listed as being located in the laboratory, verify its presence and place a note on the survey log that the device was checked.

4. **Reporting**
   a) Record all inspection results on the inspection form.
   b) Forward a copy of the inspection form to the RSO for review.
   c) File the signed original inspection form.