Radiation Safety Matters-2022/2023

Contamination Surveys

- Personal surveys and surveys of the radiation work area must be performed during and after **every use** of radioactive material.
- Always notify EHS of any personal contamination. Use the EHS Emergency Line: 203-785-3555.
- Laboratory surveys are required to be performed at regular frequencies, typically monthly. Help your lab to meet this responsibility.

Face Masks

- Do not touch your mask with gloved hands. This can lead to the spread of radioactive contamination.
- Survey your face mask during personal surveys.
- Only wear your lab mask while in the lab. Remove and dispose before going home.

Safety Culture

The Nuclear Regulatory Commission expects individuals and organizations to establish and maintain a positive safety culture. Do your part:

- Take responsibility for safety
- Talk about safety
- Plan for safety
- Look out for others
- Model safety

Isotope Fact Sheets

- Know the properties of any radionuclide you handle (i.e. decay mode, decay energy, half-life).
- Isotope fact sheets for many commonly used radioisotopes at Yale are available at https://ehs.yale.edu/radiation-tools-resources.

Radioactive Material Shipments

- Order radioactive materials through Workday. EHS will review and approve these orders.
- Survey incoming shipments following your lab's protocol. Find an example protocol at https://ehs.yale.edu/sites/default/files/files/radioactive-material-use-log.pdf.
- Store newly received stock vials securely.

Security

- Store all radioactive materials (including radioactive waste) securely.
- Keep lab doors locked when vacant.
- Pay attention to unknown persons in and around your lab.
- Report suspicious behavior.

Please see reverse side for important updates regarding dosimetry, Uranium and Thorium use, and ordering of Liquid Scintillation Counter (LSC) vials.

Important Announcements

Landauer is Yale University's New Radiation Dosimetry Vendor

Please see below for important information on the new dosimeters:

1. The new dosimeters come with a clip that the dosimeter snaps into. **DO NOT RETURN THIS CLIP.** The clip is re-used from quarter to quarter. Simply remove the dosimeter to be exchanged and send back. Then, snap the new dosimeter into the clip. It is important that the plastic tab is removed to properly install the dosimeter in the holder.

2. Badges are delivered to the departmental office, not directly to your lab. If you do not receive your badge, check first with your department administrator, or check your departmental mailbox.

3. To add, alter or cancel a dosimeter, or to ask a question regarding radiation dosimetry, please reach out to dosimetry@yale.edu.

Please watch a short video summarizing the EHS Dosimetry Program, which includes a tutorial on how to assemble the Landauer OSL dosimeter and holder.

Reminder on Requirements for Uranium and Thorium Users

Uranium and thorium compounds are treated as unsealed radioactive materials. The following requirements apply to their use.:

1. Anyone working for a PI authorized for uranium and thorium compounds must complete appropriate radiation safety training for unsealed materials.
2. A Geiger-Mueller (GM) survey must be completed after each use of uranium or thorium.
3. At least once per month, a survey must be completed of the work area, documented, and kept for review. EHS will verify completion of these monthly surveys during quarterly inspections.
4. Wipe tests are not required for uranium and thorium uses, ***except*** if other isotopes are used that do require completion of wipe tests (e.g. C-14, H-3, P-32). In this case, uranium and thorium use areas should be included in the required wipe tests.

Ordering Liquid Scintillation Counter (LSC) Vials

Supply chain issues have made purchasing new LSC vials difficult. LSC vials can be purchased directly from Perkin Elmer at the link below, or they may be purchased through SciQuest at Yale's discounted pricing.

1. High Performance Glass Vial, 20 mL, case of 500 – 6000349 | PerkinElmer

2. Sci-Quest/Workday: Part No. 6000349