Radiation Safety Matters-2020/2021



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. See reverse for a refresher on lab survey requirements.



Face Masks

- Surgical type masks must be worn in the lab during the COVID-19 pandemic.
- 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 face 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 securely.
- Keep lab doors locked when vacant.
- Pay attention to unknown persons in and around your lab.
- Report suspicious behavior.



EHS Integrator

- EHS Integrator is a web portal designed for your use to make safety recordkeeping easy.
- In EHS Integrator, you can edit your PI profile, submit and update registrations, resolve surveys, request waste pickups and maintain your inventory lists. Contact your Safety Advisor for assistance.

Please see reverse side for lab survey tips.

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Personal Surveys - An operating survey meter should be within arm's reach whenever working with radioactivity. Individuals should survey themselves and their work areas on an "as used" or "daily basis". EHS recommends frequent surveys of hands, exposed skin areas, face mask and lab coat to identify and rectify contamination, thus preventing significant doses and internal exposures. Personal and post-experimental surveys may be documented using a check off sheet like the example below, which can be found at: https://ehs.yale.edu/sites/default/files/files/radiation-personal-monitoring.pdf

Personal monitoring checklist - sample

The following areas should be monitored after each experiment which involves radioisotopes. Please be sure that the proper survey instrument is used.

Personal Survey					Work Area Survey				
Name	Date	Hands	Body	Shoes	Work Bench	Floor	Equip	Regular Trash	Describe Any Contamination Found

Please indicate any contamination found and results after cleaning. Also, skin contamination and spills should be reported to the Radiation Safety Section immediately at 785-3555.

Lab Surveys - In addition to post-experimental surveys, complete lab surveys shall be performed and fully documented as per the procedures outlined in your lab's RSC approved Radioactive Material Use Registration. These procedures can be found in EHS Integrator on your PI Registration tab. **These NRC-required lab surveys typically include meter and wipe test surveys and are required to be performed at least monthly**.

HOW TO DOCUMENT SURVEYS PROPERLY

Documentation of lab surveys is required and should contain the following information:

- 1. Building/room number and floor plan map;
- 2. Indications on the map as to where the wipe tests were taken;
- 3. Wipe test results (even if background), such as liquid scintillation counter printout;
- 4. Survey meter results (even if background);
- 5. Name of person performing the survey;
- 6. Date of survey;
- 7. If applicable, list the monitoring results following decontamination to include:
 - a. wipe test
 - b. survey meter reading