X-Ray Safety Retraining 2022-2023 XRD and XRF Systems



Training

- All authorized x-ray equipment operators must complete the appropriate x-ray safety training starting at https://ehs.yale.edu/trainings/x-ray-safety.
- Area frequenters (persons not involved in x-ray activities) must be informed about the presence of x-ray generating equipment and of the rules to follow. See https://ehs.yale.edu/x-rays for more info.



Dosimetry

- To request dosimetry badges, please visit: https://ehs.yale.edu/sites/default/files/files/radiation-service-monitoring.pdf
- Wear your badge whenever using x-rays equipment; Wear your badge at the collar outside of any lead apron; Store badge away from radiation when not being used.
- Never share badges or intentionally expose badges to radiation.
- Return badges in a timely manner at the end of the wear period.



Security

- Turn off your equipment when not in use.
- Always secure keys when x-ray unit is not in use.
- Do not post passwords nearby x-ray control computers and do not leave any keys with your equipment.
- Only trained authorized users should have access to the unit keys.



XRD and XRF Setup

- DO NOT attempt to handle, manipulate or adjust any object (sample, sample holder, collimator, etc.) which is in the direct beam path while the beam is on.
- Never place your hands or other body parts in the x-ray beam.
- For computer controlled runs, check and ensure that the runs are complete before making any adjustments.



Unit Malfunction

- If the x-ray unit appears to malfunction, remove it from service immediately.
- Contact your supervisor and the service representative as soon as possible.
- Make certain other users are aware that the unit is out of service and notify Radiation Safety at the EHS main line 203-785-3550.



New Use or Termination of Use

• Contact EHS prior to purchase, relocation, transfer, donation or disposal of an x-ray unit to ensure all work is handled correctly and in accordance with Connecticut Department of Energy and Environmental Protection regulations. Ionel Hau is the EHS contact for X-ray Safety matters - Ionel.Hau@Yale.edu



Emergency Procedures

• If you have, or think you have, placed any body part in the path of the primary beam, if there is a suspicion of an x-ray exposure or for any other x-ray related emergency, call the EHS emergency line at 203-785-3555. This line is staffed 24 hours per day, seven days per week.

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 <u>short video</u> summarizing the EHS Dosimetry Program, which includes a tutorial on how to assemble the Landauer OSL dosimeter and holder.