



RAM Unsealed Source User Checklist

Before work

Only personnel with up-to-date User Training may work with RAM.

Don dosimeters and PPE (P-32/I-125: labcoat, gloves, eye protection; H-3: same + another pair of gloves and booties).

- o Long pants and closed-toed shoes are mandatory for work with unsealed sources.
- o Rings should be worn under the gloves with the writing facing your palms.
- o Body badges should be worn above the waste and below the neck (on your torso).
- o Make sure additional gloves are inside the lab for changes. Check Geiger counter functionality.
- o Ensure it has been calibrated within a year and check the battery.

Ensure absorbent pads are covering the work area, shielding is in place, and signage/labels for area are posted.

During work

Periodically check your hands and the work area for contamination with a Geiger counter.

Remove and replace gloves reading >200 cpm, as needed.

After work

Perform a post-use Geiger counter survey of the work area and clean any area reading >200 cpm.

Fill out the Radioactive Material Use Log with the activity (uCi) and amount (uL) of the material you used, remaining volume in the vial, amount removed to dry and liquid waste, your initials and the results of the Geiger counter post-use survey.

Fill out the back of the rad-waste tag(s) with the disposal information (amount disposed, date, initials).

- o Make sure to appropriately segregate waste types (dry, liquid, LSC vials, etc.) and isotopes.

Before leaving the work area, frisk yourself with the Geiger counter (hands, body, arms, legs, feet) before and after removing PPE.

Wash hands.

Secure the lab (shut and lock the door).

Within seven (7) days of the first use of an unsealed source, perform both a Geiger counter survey of the work area and a LSC wipe test of at least 10 spots (location numbers denoted on a lab-specific survey sheet). The first day of use counts as Day 1 (i.e. if the use occurs on Monday, the survey must be performed by the subsequent Sunday). Record the results on a survey sheet and clean any area reading >200 cpm. Keep surveys in a designated survey binder. These records must be kept for at least 3 years.

Other information

Any work with volatile RAM must occur in a designated, certified, and functional fume hood.

I-125 users performing iodinations must notify the Radiation Safety Office in advance to arrange for air monitoring during use and a post-use bioassay within 72 hours.

Once a vial is removed to the dry waste, indicate the date of disposal on the Radioactive Material Use Log and place the log in the "Spent" section of your lab's binder.

When a waste container is full and ready for pickup, fill in the total amount of RAM (uCi added from the back), date, and sign. Email the Radiation Safety Office for pickup.

Orders for new RAM must be submitted to the Radiation Safety Office before noon on Thursday for receipt on Friday. To submit an order, complete the form located on the EHS website and walk it down to Mellon Institute, room 311: <https://www.cmu.edu/ehs/Laboratory-Safety/radiation-safety/documents/ehs---order-form-for-radioactive-materials.pdf>.