



ENVIRONMENTAL HEALTH & SAFETY | RADIATION SAFETY

On-The-Job Radiation Safety Training

Worker name: _____ Date: _____

Job title: _____ PI: _____

	Trainer initials	Worker initials	Date
RAM Authorization <ul style="list-style-type: none"> • Radiation safety publications and notice to employees • Authorization documents • Possession limits, annual limits, compounds 			
Receiving RAM Packages <ul style="list-style-type: none"> • Pre-approval from EHS • Receiving packages from EHS • Surveying stock vial, pig, and packaging • Package disposal • RAM stock security 			
Lab Surveys <ul style="list-style-type: none"> • Frequency and survey type • Instrument check (current calibration and battery check) • Area and equipment survey • Personal whole-body survey • Recount and re-survey after cleaning, or call EHS 			
Dosimetry <ul style="list-style-type: none"> • Properly worn • Keep dosimeter from water, solvents, or heat • Low background storage location • Timely collection and return of dosimeters to EHS • Bioassay frequency and procedure 			
Inventory and Waste Accounting <ul style="list-style-type: none"> • Location of accounting sheets • Per RSO number, waste must equal original order activity • Record date, aliquot, and user on accounting sheets • Properly completed waste ticket required for waste pickup • Radioactive waste types and classifications 			
Emergency Procedures <ul style="list-style-type: none"> • Reportable radioactive incidents • Response procedure to spills or personal contamination • Spill kit contents and location 			
Liquid Scintillation or Auto-gamma Counting <ul style="list-style-type: none"> • Counting protocols • Regions and channels • Counting background and standards • Quench check or correction 			

Checklist Guidance

Page 1 of this document lists suggest topics for lab worker OJT. Training should be tailored to the laboratory and include review of its specific protocol. Review of safe handling procedures is essential for all workers, regardless of experience level. The estimated time to complete OJT is two hours.

1. RAM Authorization

The authorization document contains, in part, information on annual and possession limits, the approved compound(s), survey frequency, survey requirements, shielding requirements, and waste handling considerations. Workers must know where to find this document, as well as the [Radiation Safety Manual](#), the [RAM Waste Disposal Manual](#), and the CDPHE “Notice to Employees” posting.

2. Receiving RAM Packages

Cover the pre-approval process and survey requirements for incoming packages. EHS surveys package exterior only; the RAM user must survey the stock vial upon receipt, and document the results. The empty package must be survey prior to disposal. Review procedures to secure the stock material.

3. Lab Surveys

The authorization document identifies types of surveys required and their frequency. Contaminated areas must be decontaminated and resurveyed; steps taken must be documented and linked to the original survey. Areas of persistent contamination that cannot be decontaminated must be reported to Radiation Safety, 303-724-0345. Retain surveys and related documents in the lab’s radioactive materials documentation binder for three years.

4. Dosimetry

If exposure monitoring is required, ensure that radiation workers wear assigned whole body dosimeters on the upper front torso, and that the dosimeters are stored in a low background area when not in use. Ring dosimeters should be worn with the monitoring device palm-side. Report lost dosimeters to radtraining@ucdenver.edu as soon as possible upon discovery.

5. Inventory and Waste Accounting

Radiation Safety provides accounting sheets with each RAM delivery to assist with inventory of stock and waste material. When accounting for stock/waste, do not consider decay; waste must equal stock. Radiation Safety will review survey documents during waste pickups. Failure to provide these will result in pickup delays.

6. Emergency Procedures

Any incident involving RAM contamination of floors, or personnel clothing or skin must be reported immediately to Radiation Safety, 303-724-0345.

7. Liquid Scintillation or Auto-gamma Counting

Cover general counting procedures and how to interpret results to identify contamination. Unless specifically identified in the RAM authorization, only non-hazardous scintillation cocktail may be used for swipes in the liquid scintillation counter. Swipe testing is required for all isotopes to identify removable contamination.

Remember, if it is not documented, it was not performed.