

EH&S Fast Facts

MONITORING YOUR LAB FOR RADIOACTIVE CONTAMINATION



As a condition in the Radiation Use Authorization (RUA), you must maintain an ongoing radiation monitoring program for all radionuclide work areas, storage locations, and equipment that may have come into contact with radioactive materials. Follow the guidelines below for radioactive contamination monitoring and radiation field measurement.

Frequency

- Perform monitoring immediately after using radioactive materials. If work has been performed with anything except H-3 (tritium), a GM survey meter (pancake probe) can be used to detect low levels of beta/gamma emitters
- Wipe test results must be recorded in a log book a minimum of once every month if routinely used and after each use if work with radioactive materials is infrequent
- More frequent monitoring may be required depending on the experimental protocol (specified in the conditions of your RUA)

Method- A Floor Plan

- A floor plan of all radionuclide work areas, storage locations and equipment used should be drawn, copied, dated, and wipe locations identified
- Wipe tests should cover approximately 100 cm² (4" x 4")
- Results and an indication of which wipe test was used for the background count should be attached to the floor plan (background serves as a reference for monitoring and an integrity check on all machines with internal standards)

Standards

- Areas exceeding the following guidelines are considered contaminated

Area Type	Alpha Emitter (dpm/100 cm ²)	Beta, Gamma Emitter (dpm/100 cm ²)	Low-risk Beta, Gamma Emitter (dpm/100 cm ²)
Restricted	22	220	2200
Unrestricted	220	2200	22000

- Decontaminate area(s) until level is below guidelines - attach results (first wash, second wash, etc.) to original results and lab map
- If you are unable to decontaminate down to acceptable levels, call EH&S/Radiation Safety at 2-5529
- Don't attempt decontamination in the case of a major spill (millicurie amounts) - control the area and call EH&S (call 9-1-1 or the Hospital Operator after working hours)

Visit www.ehs.ucr.edu for additional information or call EH&S at 827-5528 if you have any questions.