



Safety and Risk Management

Radioisotope Record Keeping

The work involving radioactive materials at VCU covers a broad spectrum of applications. Although it would be virtually impossible to devise a single format for radioisotope record keeping that is right for every investigator, the enclosed logbook index set for radioisotope records should facilitate the record keeping requirements for most investigators. You are asked to familiarize yourself with the system and then initiate its use in your own radioisotope work. All records concerning receipt, use, monitoring, transfer and disposal of radioactive materials must be kept for three (3) years. After that time, the records may be discarded. Each section of the logbook is explained below.

Authorizations

This section of the logbook should include copies of the responsible investigator's authorizations to use radioactive materials, and amendments to these authorizations.

Radioisotope Receipt/Use/Disposal

This form is used to track radioactive material in the laboratory from receipt to disposal and denotes the changing status of the material from stock to active use to waste. Each container of radioactive material is assigned a control number when it is received in Radiation Safety. A separate receipt/use/disposal form should be used for each control number. Receipt information should be entered at the top of the form. The use section on the left of the page should be filled in each time the radioisotope with that particular control number is used. When a radioisotope is assigned to in-laboratory waste, record the amount in microcuries in the appropriate column of the "Waste in Lab" section. When radioactive material is brought to Radiation Safety for disposal, record the amount in the column titled "Waste Disposed to Radiation Safety Section" and record the total microcuries left in the lab. Transfer waste entries to the "Radioactive Waste Disposal" form that is used when waste is brought to Radiation Safety for disposal.

Waste Disposal

Before bringing radioactive waste to Radiation Safety for disposal, fill out a "Radioactive Waste Disposal" form and keep a copy for your records. File your copy in the "Waste Disposal" section in your log book.



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Monitoring

Monitoring records consist of the actual numerical results of swipe tests performed to detect removable radioactive contamination within the lab. The test is performed by wiping a piece of parafilm, filter paper, or a commercial swipe over a surface, and counting the sample in the appropriate analyzer (liquid scintillation counter or a gamma well counter). A room diagram is necessary to show swipe locations. The printout from the counter should be placed in the "Monitoring" section of the log book. Count results should be labeled to correspond with the room diagram locations. A blank sample is required with each set of swipes as a background measurement. Any sample above 200 cpm is considered contaminated. A contaminated area should be cleaned, then re-swiped to ensure that removable radioactive contamination is less than 200 cpm. Label re-swipe counting results and also file these in the "Monitoring" section of the log book. University regulations require swipe monitoring once each calendar week, or after each use of radioactive materials if the use is at greater intervals than weekly. Swipe monitoring records must include the date.

Survey Reports

The Radiation Safety staff performs quarterly surveys of laboratories using radioactive material. The inspection includes a review of radioisotope records, waste disposal procedures, security, personnel monitoring requirements, safety procedures, and an evaluation of contamination levels in the laboratory. A "Quarterly Radioisotope Inventory" form is left during the survey. A completed inventory form should be sent to the Radiation Safety Section at Box 980112 within 10 days. Following the inspection, a survey report is sent to the responsible investigator. The survey report and a copy of the completed inventory form should be filed in the "Survey Report" section in the log book.

Miscellaneous Radiation Safety Section Correspondence

Any memos or notices sent to or received from the Radiation Safety Section should be kept in this section.