

SEWER DISPOSALS OF SOLUTIONS CONTAINING RADIOISOTOPES

While OSU's Radiation Safety Office (RSO) will provide containers for PIs to collect liquid radioactive material (RAM) waste during their RAM procedures, it is permissible *under certain circumstances* to dispose of solutions containing small amounts of radioactive materials (RAM) into the sewer via the sink. Only if your disposals meet all of the criteria and you keep the required records, as described below, may you proceed with disposing of RAM waste into the sewer system. If a PI chooses to proceed with the sewer disposal, the PI will be responsible for maintaining the required records as described below for each disposal.

Sewer Disposal Requirements

- 1. Location:** Solutions from RAM procedures may only be disposed of in authorized RAM sinks. If you do not know if your sink is authorized, contact the RSO.
 - Note that when disposing of RAM down the drain, you must run water for approximately two minutes prior to the disposal to ensure the drain is not clogged, and continue running water for 5 – 10 minutes after the disposal to ensure that the RAM was adequately flushed through the pipes.
- 2. Types of Solutions:** All RAM solutions that are to be disposed of into the sewer system **MUST** be aqueous solutions and cannot contain chemicals that are prohibited from being poured down the drain. Contact Environmental Health and Safety (EHS) if you have questions regarding other chemical components of your solution.

YOU MAY NOT USE THE SINK AS A METHOD OF DISPOSAL FOR OLD STOCK SOLUTIONS.

Regardless of the activity that is in the vial, stock solutions must always be disposed of via the RSO as standard RAM waste.

All solutions must be totally solubilized without precipitates or other solid materials (cell debris, etc.).

- 3. Times of Disposals*:** Disposal of RAM solutions may only occur between 8:00 a.m. Monday through 5:00 p.m. Friday during normal work weeks. RAM sewer disposals are prohibited on weekends, university holidays, or any other day the university is closed.
- 4. Activity Limits:** The following table lists the daily activity limits for the commonly used unsealed radioisotopes on the OSU campus. If your radioisotope is not listed, it may not be disposed of into the sewer. Contact RSO if needed.

Radioisotope	Daily Sewer Disposal Limit per Lab
H-3	250 uCi
C-14	100 uCi
P-32	10 uCi
P-33	50 uCi
S-35	100 uCi
I-125	15 uCi

5. Record Keeping Requirements: If you determine that your sewer disposal satisfies all of the above requirements, then you must record the following:

- 1. Total Activity Disposed:** Choose one of the following methods and indicate which was used:
 - a. If the total activity you are using for your procedure is less than the activity listed in the table above for your isotope, then you may record an estimate of what is disposed of down the drain by calculating the unincorporated activity.
 - b. If the total activity you are using for your procedure is more than the activity listed in the table above for your isotope, you must collect all the liquid waste during the procedure and count a sample to verify that it does not exceed the disposal limit before disposing of it. The count results and data conversion must be kept with the paper disposal records.
- 2. Volume Disposed**
- 3. Date and Time of Disposal**
- 4. Person Doing the Disposal**
- 5. URC Assistant Database Inventory:** Because the Radiation Safety Office tracks sewer disposals using reports generated from the URC Assistant database, you must enter all sewer disposals into the database within one week of the disposal date.

* For sewer disposals outside of this time frame, prior written approval from the Radiation Safety Officer must be obtained. This written approval must then be included in the records for the disposal.