

SEWER DISPOSAL OF RADIOACTIVE MATERIAL [RAM]

Yale University's Nuclear Regulatory Commission license and Connecticut State Department of Environmental Protection regulations allow for the disposal of small amounts of radioactive material into the sanitary sewer system. Yale strives to keep these allowable disposals as low as feasible and therefore limits how much radioactive material each research lab group may dispose. Careful records of each such disposal are required.

For a number of reasons [recent stricter regulations, plumbing concerns, environmental and public relations concerns] the decades-old sewer disposal limit for radioactive material was recently re-evaluated. A large number of Yale laboratories, which have reported sewer disposal of RAM on past inventory reports, were contacted. They were polled about the potential impact of a change in sewer disposal limits. The Radiation Safety Section worked with several of these laboratory groups to ensure they could easily comply with a new lower limit. The Radiation Safety Committee, at its November 1999 meeting, approved a change in the limit which became effective 1/1/2000.

The old limit had been 80 microcuries per week per PI for all of his/her radioactive materials and all lab sinks totaled together. The new limit is now one half of the old limit. It is expressed as 520 microcuries per quarter [3 month inventory reporting period]. This is an AVERAGE of 40 microcuries per week for a given PI. However, laboratories can have several weeks in a quarter in which more than 40 microcuries of RAM is sewer disposed, as long as the total for the 3 month period is less than or equal to 520 microcuries.

Note also that the radioactive material disposed of must continue to be readily soluble in room temperature water or be of biological origin. It should be poured directly into the sink drain [as opposed to poured into the bottom of the sink] and should be flushed well with water so that it does not pool in the sink trap.

RSS encourages researchers to collect into liquid waste jugs any RAM that can readily be collected. This is especially true for radioiodine and those radioisotopes with longer half-lives. Sewer disposal should generally be limited to low activity/high volume liquids such as that generated from washing non-disposable lab equipment that has come in contact with RAM. Third washes that contain very low levels of activity may also be sewer disposed. Whenever feasible, other liquids containing RAM should be collected into liquid waste jugs provided by the Environmental Services Section. Call 785-3551 to order additional liquid waste containers. Larger, 5 gallon containers are also available in addition to the standard 1 gallon jugs. Note also that PIs can apply for an increase above this new limit if an unusual condition in the laboratory warrants such an increase.

If you have any questions or concerns, or feel your laboratory needs to apply for an increase above this new limit, please let Radiation Safety know by calling 737-2140.

Thank you for your understanding and cooperation.