

## Radioactive Materials Inventory and Wipe Testing

### Inventory

The State of Ohio Bureau of Radiation Protection limits the amount of radioactive materials Kent State may have on hand at any one time. This amount varies with the isotope. For example, we are allowed to have a maximum of 50 mCi of P-32 and 10 mCi of I-125. The maximum amounts are listed in our Radioactive Materials License issued by the State of Ohio.

To ensure that we do not exceed those amounts, it is necessary to maintain an inventory of the activity of the radioactive materials. As radioactive materials are purchased, the RSO adds the activity to each authorized user's inventory and calculates the amount of activity lost to decay each month.

To maintain an accurate accounting of the activity of each isotope, every authorized user must keep track of the activity of radioactive materials that is used in his or her laboratory by recording how much activity is disposed of via pouring into the drain or how much is put in the solid or liquid waste to be held for decay in storage or final off-site disposal.

The amount of activity that may be disposed of into the sewer is limited by the NRC and is dependent upon the total volume of waste water generated by the University. The chemical form must be water soluble and not otherwise hazardous. The allowable amount of activity per laboratory per day is as follows:

C-14	0.1 mCi/month
H-3	0.1 mCi/month
I-125	0.1 mCi/month
P32	0.25 mCi/month
P-33	0.25 mCi/month
S-35	0.125 mCi/month

The daily record of sewer discharges must not exceed this amount.

### Wipe Testing

The State of Ohio requires that wipe testing be preformed at least once per month in each laboratory or counting room where radioactive materials are used.

### Reporting and Record Keeping

To ensure that these activities are accomplished on a timely manner, a daily log of radioactive isotope usage should be kept in each laboratory listing the activity of each isotope used and its disposition.

Each laboratory or counting room should be routinely wipe tested on a set schedule each month.

The above inventory data and wipe test results are to be reported to the RSO by the 7<sup>th</sup> of the following month. A form will be e-mailed to each authorized user the last week of the current month. This form maybe printed and filled out or filled out using Adobe Acrobat reader and then printed. The completed form must be signed by the user and faxed ( 2-2658) or sent via campus mail to the RSO. If no radioactive materials were used in the month, the appropriate box must be checked before sending to the RSO.

**The RSO will not authorize the purchase of radioactive materials without the inventory data and wipe test results from the previous month.**