Old Dominion University

Request for Removal of Radioactive Waste

Authorized User: _____ **Date:** _____

Department: _____ **Building and room:** _____

Contact and phone number: _____

Radionuclide	Activity(mCi)	Type of Waste (Solid, Liquid, Carcass, Vials)	Quantity to be picked up. Bags = B, Gallons= GL, Carcass = C, Flats of LSC vials = V)	Hazardous Chemicals Yes or No If Yes, list below*
		S L C V		
		S L C V		
		S L C V		
		S L C V		
		S L C V		
		S L C V		

***Hazardous chemical components of liquid waste** _____

_____

This information is complete and correct and chemical compostion of the waste has been accurately listed above.

Signed:_____

Principal investigator or representative

RSO Use:

Date Received _____ **Total Gallons or Liters** _____

Picked up by _____ **Date picked up** _____

Waste properly labeled:_____

If not removed, state reason_____

Decayed Activity(solid only)_____ RSO ID number(s) _____

Form and radionuclide:

Solid: Glass _____ **Plastic tubes** _____ **Paper waste** _____ **Liquid:**_____ **Other:**_____

Signature _____

RSO representative

RSO-50(Rev 7/02)

INSTRUCTIONS FOR COMPLETING THE WASTE FORM

Radioactive waste must be segregated by radionuclide, half life and physical form(solid, liquid, liquid scintillation vials or carcasses). Scintillation vials shall be returned to their flats for pick up. Each container, bag or flat of waste should be marked with a piece of radiation tape which contains the following information: radionuclide, activity, date, and investigator.

Complete the form and submit it to the Radiation Safety Office. To compute activity in liquid waste, use the following procedure.

1. Pipette a 1.0 ml aliquot of the liquid waste and place it in a liquid scintillation for beta emitters or an assay tube for gamma emitters.

2. Count the sample for one minute in either a liquid scintillation counter(beta) or gamma scintillation counter(gamma).

3. Using counts per minute (CPM) obtained from the count, calculate activity per volume(uCi/ml) by:

$$\text{uCi/ml} = \frac{\text{CPM/ml}}{\text{Yield}} \times 4.51\text{E-7 uCi/DPM}$$

4. Determine the total volume of waste in ml.

5. Calculate the total activity(uCi) using the following equation:

$$\text{Total activity(uCi)} = (\text{uCi/ml}) \times (\text{ml})$$

Activity in solid waste can be estimated by subtracting the activity in liquid waste from the total activity used in the procedure.