





RADIOACTIVE WASTE DISPOSAL

This table provides a general guide to the waste disposal routes available in radiation laboratories. All disposals must be authorised by the Radiation Protection Service who will issue activity limits to research groups. Additional conditions on waste disposal are written into the Local Rules.

Which waste route should I use?	What can I dispose of?	What are the main limitations and conditions?
<p>Aqueous</p>	<ul style="list-style-type: none"> • Aqueous radioactive materials. • Redundant radioactive sources and stock solutions. • Laboratory washings. • Small volumes of water soluble scintillant fluids such as Ecoscint – by prior agreement only. 	<ul style="list-style-type: none"> • Beta and gamma emitting radionuclides only. • Disposals should be made into copious quantities of running water in a Designated Sink. • Record all disposals accurately (see local procedures). • In general, water soluble scintillant fluids must be disposed of via the organic route (below).
<p>Solid</p> <p>Waste should be placed in the yellow radiation sacks provided by the Radiation Protection Service.</p> 	<ul style="list-style-type: none"> • Radioactive or contaminated items only. • Waste radioactive materials. • Laboratory consumables contaminated during use. • Contamination from spillages etc. • Contaminated packaging materials. • Trefoils, hazard warning tape, radiation signs. • Redundant plastic / Perspex source pots. 	<ul style="list-style-type: none"> • Beta and gamma emitting radionuclides only. • No alpha emitting radionuclides. • Limit of 10 MBq of radioactivity per bag. • Special dispensation to be sought from the Radiation Protection Service to permit the disposal of activities in excess of 10 MBq/bag. • Record all disposals accurately on RSID and mark the bag with the RSID bag number. • All waste bags should be sealed and transferred to the departmental waste collection area by the end of each month.

<p>Uncontaminated solid waste – normal laboratory waste</p> <p>This category is for non-hazardous non-offensive waste, which should be disposed of as normal laboratory waste.</p>	<ul style="list-style-type: none"> • Packaging materials used in the shipment of radioactive sources. • Laboratory consumables. • Gloves, disposable or redundant lab coats. • Paper, tissues, Benchkote etc. 	<ul style="list-style-type: none"> • No radioactivity. • No trefoils, hazard warning signs, radiation signs. • A monitor should be used to confirm that waste is not contaminated.
<p>Green Tag VLLW</p> <p>Waste should be placed in the black polythene bags and labelled with a VLLW tag.</p>	<ul style="list-style-type: none"> • Prepared uranium / thorium compounds. • Other specified alpha emitting radionuclides. • Radioactive sediments, soils and other mineralogical samples. • Contamination from spillages. • Laboratory consumables, gloves, paper, Benchkote, etc. (contaminated and non contaminated items). 	<ul style="list-style-type: none"> • This waste route may only be used by prior agreement with the Radiation Protection Service. Special limitations will apply.
<p>Organic (scintillant)</p> <p>Waste should be placed in the blue radiation sacks provided by the Radiation Protection Service.</p> 	<ul style="list-style-type: none"> • Waste radioactive materials in (high flashpoint) solvents or organic form. • Scintillant vials and similar laboratory consumables. 	<ul style="list-style-type: none"> • Beta and gamma emitting radionuclides only. • No alpha emitting radionuclides. • 10 MBq of radioactivity per bag. • 1 litre of organic material per bag. • Record all disposals accurately on RSID and mark the bag with the RSID bag number. • All waste bags should be sealed and transferred to the departmental waste collection area by the end of each month.
<p>Lead – black bucket</p>	<ul style="list-style-type: none"> • Lead linings from source pots. • Lead shielding. 	<ul style="list-style-type: none"> • Labels removed and pots decontaminated. • Where possible, plastic components removed.

Technical notes

- 1) Solid, Organic and VLLW waste bags will be collected from the departmental waste storage areas by the Radiation Protection Service at the beginning of each month.
- 2) Bags must be correctly sealed, entered on RSID and marked with the RSID bag number. Only waste bags listed on RSID will be collected.