

Section 6. Record keeping: Use, Accumulation and Disposal

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6.1 Statutory requirements and responsibilities

Records are a statutory requirement under the Environmental Permitting Regulations 2016 and are designed to demonstrate the University's compliance with its permit conditions. It is the Department's responsibility to ensure that the conditions of the permits and any additional conditions placed on them by the UIRPO are complied with. Failure to comply with permit conditions may result in prosecution.

The UIRPO is required by law to report to the Environment Agency any breach of the permit conditions or any breach which they have reason to believe might have occurred.

It is the responsibility of the research group, not of the DIRPS, to ensure that the records are complete and up to date. The DIRPS is only required to audit a sample of the figures. Any records found to be incomplete or inaccurate by the UIRPO will be returned to the DIRPS. Research groups who persistently return incomplete or inaccurate records will be de-registered and their approval to work with radioisotopes withdrawn.

Work will only be allowed to restart when the Department and the research group concerned is able to satisfy the UIRPO that the procedures will be properly managed.

Note: The Environment Agency requires that any amendments to records are made in such a way that it is the original and subsequent amendments are legible or capable of being retrieved. If you need to amend any written records, you should initial and date the amendment.

6.2 Open sources

6.2.1 Completion of record forms

- An isotope Delivery Form (Form 6) must be completed when any new isotopes are ordered.
- A Record of Radioactive Isotope Accumulation and Disposal (Form 5) must be maintained for all isotopes that are in use and transferred to stores for disposal.
- A *Radioactive Waste Consignment note* (supplied by the waste disposal company) must be completed for any waste disposed of via a licensed contractor.

Refer to *Ionising Radiation: Processes and Responsibilities* for further details.

Note on completion:

The Environment Agency permits held by the University require that the records reflect the conditions and units specified in the disposal permits. Records must be in kBq unless otherwise stated

Records, in a clear and legible form, are required to be made for each and every accumulation and disposal at the time of accumulation or disposal by the research group using the source.

If errors are made they should be struck out by drawing a line through them and then rewritten. Correction fluid must not be used.

The records must be kept for inspection by the Environment Agency Inspectors at any time. **Inspectors will expect the records in terms of amounts received to amounts disposed of as waste to balance when they carry out their audits.**

6.2.2 Transfer of waste to decay store

The DIRPS or their nominee will be responsible for transferring radioactive waste to the store designated for accumulation and decay. The records of these transfers must be recorded on form 5. A unique numbered tag must be attached to each waste bag. The number and form 5 enables identification of the radioactive materials or radioactive waste present.

When a transfer is made to the decay store the record sheet kept in the store must be updated. The accumulation records must be checked at the same time to ensure that the limits for accumulation and disposal are not exceeded

This will ensure that "Cradle to Grave" records are available for each isotope at the point of use.

6.2.3 Disposal records

The Environment Agency requires that records of disposal of radioactive waste must be made no later than 14 days after the end of each month for which the disposals were made. Databases maintained by the department and centrally should therefore be updated as soon as it is practicable to do so. It is important that records / paperwork associated with disposals are forwarded to the UIRPO promptly so that the central database is kept up to date and accurate monthly summaries produced.

6.2.4 Periodic returns to the UIRPO

Whenever work is carried out with open radiation sources, the DIRPS must ensure periodic returns (at least monthly unless agreed otherwise with the UIRPO) are made to WHSW on the first working day of each period.

The returns will be made by copying the laboratory record forms to WHSW.

The copy must bear the signature of the DIRPS or their nominee certifying that the figures have been checked and are correct.

6.2.5 Departmental records

The DIRPS or their nominee must maintain a Departmental record of all isotopes placed in the decay store to ensure that the Environment Agency authorisations are not exceeded. The record must also be kept in the store.

A current record of waste accumulating in the waste store is also kept in the front of the waste accumulations file in room 3.02, to enable radiation workers to plan waste disposal.

6.2.6 Central Records

WHSW will collate all records presented by the DIRPS and ensure they are correctly recorded on a central database. A summary showing isotopes stored, accumulations and disposals will be produced each month to satisfy the requirements of the Environmental Agency. A copy will be sent to the DIRPS.

6.2.7 Accounting for Open Sources

The DIRPS or their nominee must carry out a monthly check on the stored isotopes. A record of the checks must be kept. An annual stock take and physical check on activity levels should also be carried out.

6.2.8 Loss of open sources

Any loss of an open radioactive source must be reported immediately to the UIRPO, who will inform the RPA.

6.3 Closed sources

Before acquiring a new Closed Source see Section 5.2 Ordering of Isotopes.

6.3.1 Records

Records for closed sources must contain:

Isotope type

Unique identifier, which must also appear on the Closed Source

Date of Receipt

Activity in Becquerels on receipt

Location of Closed Source

User and Scheme of Work

Date of last “Wipe” test.

Date and disposal route

These records are normally held in WHSW based on information provided by Department.

6.3.2 Accounting for closed sources

Closed Sources must be accounted for on a regular basis.

Where sources are kept in a locked enclosure with only one key holder they must be physically checked each month and a record kept by the department.

Closed Sources routinely removed from the enclosure for use must be checked on each working day and a record kept

Closed Sources fixed to or incorporated into instruments must be checked each month and a record kept. No attempt should ever be made to remove the source from any instrument without first consulting the UIRPO.

Where a Closed Source is not accessible its presence should be verified by operating the instrument where possible.

6.3.3 Loss of closed sources

Any loss of a closed source must be reported immediately to the UIRPO, who will inform the RPA.

6.3.4 Wipe test

Closed Sources must be “Wipe” tested at least every 2 years, this is normally carried out by the UIRPO and DIRPS or his/her nominee and a record is kept. Any sources that fail the wipe test will be reported to the person responsible for that source.

6.3.5 How long do records need to be kept?

The EA have a condition in the permit that states accountancy records of material coming on site, waste accumulated and disposal of waste both for closed and open sources must be kept until the EA give permission for their disposal.

In the long term, records may need to be kept that show, in a surrender of permits that all radioactive contamination has been removed, to avoid the premises being registered as contaminated land. Should an area used for work with radioactive substances have a subsequent change of use, i.e., use as an office then records of use, disposal and proper monitoring will be essential to show that no radioactive contamination was left behind.

In the case of the disposal of X-ray equipment then WEEE regulation may apply. Some toxic material such as beryllium may be used in X-ray tubes. A specialist disposal company may be required, if the old unit cannot be returned to the original supplier.