

Leaflet 11

Requirements for the Transfer (including return to stores), Sale, Loan and Gifting of Radioactive Materials and Radioactively Contaminated Items

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Annex A

Return of equipment containing radioactive material to LCS Donnington

Scope

1 This Leaflet covers the radiological safety requirements and arrangements to be followed for the transfer (including transfer within MOD and external to MOD), sale, loan and gifting of radioactive materials and radioactively contaminated items. The accumulation and disposal of radioactive waste is described in Leaflet 12. This leaflet should be read in conjunction with JSP 886 (The Defence Logistics Support Chain Manual) and JSP 462 (Financial Management Policy Manual).

2 This Leaflet does not cover the requirements for the transfer or sale of contaminated, or potentially contaminated, land which is described in Leaflet 13.

3 This Leaflet does not cover the requirements for transport of radioactive or contaminated items. JSP 800 Volume 4b covers the requirements for transport of excepted packages by land and sea, JSP 800 Volume 4a covers air transport – in all other cases the Dangerous Goods Safety Adviser or RPA is to be consulted. Leaflet 10 gives the radiation protection requirements for movement and transport.

Statutory Requirements

4 In addition to the general requirements of the Health and Safety at Work etc Act 1974 and the Management of Health and Safety at Work Regulations 1999, the following specific legislation applies directly or is applied indirectly through parallel arrangements designed to achieve equivalent standards:

- Ionising Radiations Regulations 1999 (IRR99) (apply directly);
- The Environmental Permitting (England & Wales) Regulations 2010 (EPR10) (as amended) (parallel arrangements)
- Radioactive Substances Act (Scotland & Northern Ireland) 1993 (RSA93) (as amended) (parallel arrangements);
- High Activity Sealed Radioactive Sources and Orphan Sources Regulations 2005 (HASS) (Scotland & Northern Ireland) (parallel arrangements).

Duties

Commanding Officer and Head of Establishment (CO/HoE)

5 The CO/HoE has a duty to the Secretary of State, and a personal responsibility, to protect the environment and secure the health, safety and welfare of their staff at work. The CO/HoE also has a duty of care to protect persons not in MOD employment (e.g. members of the public) against risks to their health and safety arising from the MOD work activities. This includes radiation safety. The CO/HoE's authority (but not responsibility) for radiation safety management arrangements may be delegated to appropriate personnel, such as a Radiation Safety Officer (RSO).

Radiation Safety Officer (RSO)

6 The Radiation Safety Officer (RSO) is to ensure that the requirements of this Leaflet are included in local orders, that appropriate personnel are briefed on the arrangements and that compliance with the arrangements is checked and audited.

Radiation Protection Supervisor (RPS)

7 An RPS is to be appointed where areas are designated as controlled or supervised. Where an RPS is appointed they are to ensure that local orders are complied with, including the requirements of this Leaflet.

Workplace Supervisor (WPS)

8 In units or establishments where it is unnecessary to appoint an RPS, a WPS may need to be appointed with duties to ensure that work is carried out in accordance with local orders for radiation safety (see Leaflet 16).

Employees

9 It is the responsibility of all employees to ensure that they comply with all relevant health and safety instructions including local orders and report any difficulties to the local RPS or WPS.

Return of Radioactive Items to the Stores or Transfer to another MoD Holder

10 The return of radioactive items to stores or transfer to another MOD holder does not require regulatory approval. This does not, however, relieve the supplier of such items from their statutory obligation to ensure that the recipient is provided with all relevant health and safety information. Specific requirements do apply and are detailed in paragraph 15.

11 Items incorporating radioactive substances that are returned to the stores organisation are not to be designated as radioactive scrap or waste but can be called “redundant”, “unserviceable” or “legacy” items. Such items may include radioactive valves, smoke detectors, equipments containing GTLSs and GTLDs, luminised (tritium or radium) items, sealed or closed sources, and equipments containing radioactive check sources.

12 Redundant or unserviceable items are normally returned to the stores organisation and arrangements made for repair or disposal through an approved route. The stores organisation is to be contacted before despatch to ensure that the items can be accepted and to obtain specific details on conditions of acceptance for items.

13 Legacy items are normally found in a museum or can be items no longer supported by a Project Team. These items should only be returned to Donnington with prior approval from the RSO at Donnington. Annex A details the process for returning radioactive material to LCS Donnington.

14 Contaminated items including those contaminated, or potentially contaminated, as a result of the Naval Nuclear Propulsion Programme (NNPP) are excluded from these arrangements. Unless an established arrangement exists, should any such items be identified, outside the NNPP, advice is to be sought from the RPA or a Radioactive Waste Advisor (RWA) on their transfer or disposal (also refer to Leaflet 12). Items already specifically identified as radioactive waste are also excluded from these arrangements.

15 It is essential that:

- 15.1 The receiving site (consignee) has an EPR10/RSA93 Notification/Approval from the relevant environment agency to hold and/or dispose of prescribed radioactive substances, unless the articles are exempt from the requirement for a permit. Advice on which radioactive items can be accepted must be sought from the consignee in advance;

- 15.2 The sender (consignor) of the radioactive items informs the consignee of the intention to forward radioactive materials, describes them appropriately and obtains the agreement of the consignee that the radioactive items will be accepted. A valid consignor's certificate for radioactive material must also accompany each consignment. The items must NOT be described as radioactive waste;
- 15.3 The appropriate transport requirements are followed in accordance with JSP 800 Volume 4a or Volume 4b and Leaflet 10. Where a carrier is used, the carrier of the radioactive items must be informed of the radioactive content of the items, be given adequate instruction by the consignor and appropriate documentation. The driver must also possess the appropriate ADR licence.
- 16 Items which fall into the following categories are not to be accepted by the consignee and are to be returned to the consignor where practicable, unless an alternative means to rectify the situation can be immediately identified and agreed:
- 16.1 Radioactive items that originate from the NNPP (contaminated, activated/irradiated or containing radioactive sources) unless the consignee has specific approvals in place to receive such items and has agreed to each consignment in advance;
- 16.2 Items which are consigned without prior arrangements made with the consignee;
- 16.3 Items which will breach the site's approved limits from the relevant environment agency;
- 16.4 Items which on receipt are proven by the consignee not to be properly described in the consignor's certificate.
- 17 High-activity sealed radioactive sources (see Leaflet 3) are subject to additional requirements as outlined later.

Sale and Gifting of Radioactive and Contaminated Items

18 The Disposal Services Authority (DSA) is responsible for the disposal by sale of all MOD surplus equipment. All surplus items identified as containing radioactive components or material should be notified to the DSA by the organisation (unit, stores or equipment manager as appropriate) proposing them for sale – JSP 886 Volume 2, Part 404 details the process for the declaration of material for disposal. This organisation is to supply DSA with the following details of the hazards associated with these items:

- A full description of the items, including relevant NATO Stock Numbers and any other unique identification information;
- A clear indication of whether the items are to be sold as a “going concern” or for residual scrap value;
- Details of the components containing radioactive material and their location;
- Details of radionuclides and estimates of activity;
- Details of contamination levels (advice is to be obtained from an RPA or RWA if contaminated items are to be sold);

- Details of any requirement for the eventual recipient to hold an appropriate Environment Agency registration or to provide a notification to HSE;
- Details of any exemptions to registration together with any limiting conditions under which the exemptions would apply;
- Description of the hazards associated with the items;
- Any other risks involved;
- Any other information that may be deemed relevant;
- Clearance Certificates: Where clearance certificates are issued with items or materials (i.e. following the removal of radioactive components from equipment), they should include the following features:
 - a. Unique identification (as far as practicable) of the item or material cleared;
 - b. Identification of the documentation which supports the certificate;
 - c. Identification of the legislation with which it is compliant;
 - d. A statement of caveats where applicable (e.g. radioactivity not detectable by the measurement systems used; presence of other toxic substances etc);
 - e. Authorisation by and signature of the owner of the item or material;
 - f. A date of issue and period of validity of the certificate;
 - g. A statement of responsibilities for keeping the documentation and certificate;
 - h. A signed confirmation of release and date;
 - i. The statement "For all regulatory and control purposes, this material is not radioactive".

19 It is vital that the unit declaring the disposal provides the information above to DSA, taking advice from the RPA or RWA if necessary.

20 Although the disposal of items by sale does not require regulatory approval, DSA, before agreeing to the sale, must obtain confirmation that a buyer has any necessary EPR10/RSA93 registration or permit in place or that an exemption applies. DSA must also check that the prospective buyer has carried out any necessary IRR99 HSE notifications (or, in the latter case, will undertake the notification 28 days before receipt). Where items are to be sold to overseas purchasers, advice is always to be sought from the TLB Safety Authority (e.g. CESO for the TLB area) and the RPA or RWA as to specific requirements of the recipient State, as to any restrictions or requirements on the shipment of items and as to the appropriate level of information and cooperation required by UK statute.

21 Items containing Radium-226 must not be offered for sale to the public, nor, in most cases, are they to be offered to potential resale or collector's outlets. Further advice should be sought from the RPA or RWA.

22 Once DSA has received comprehensive information from the declaring unit, DSA will be in a position to decide if the items are suitable for sale and radioactive components/material are to be left in position, DSA is to issue all prospective buyers of the items with details of the radioactive hazards associated with them. The agreement to sell radioactive items must clearly identify the point at which title (and associated liability) for the material transfers – this may, for example for a contractor collecting the equipment, be at the point at which the contractor's vehicle leaves the MOD site.

23 Regardless of the obligations on DSA, detailed above, the unit transferring or despatching the items, whether part of the stores organisation or otherwise, also has responsibilities and must comply with its environment agency terms and conditions relating to the sale or supply of the radioactive material. In particular, before consigning the items, the despatching unit must be satisfied in the following respects:

- 23.1 That the recipient holds an EPR10/RSA93 registration appropriate for the items being consigned – DSA should confirm that this is the case.
- 23.2 That the recipient has been provided with any necessary safety information relating to the items including the description of the radioactive material – DSA should confirm that this is the case.
- 23.3 That the recipient has agreed to receive the consignment – DSA should normally confirm that this is the case.
- 23.4 That the item(s) are marked and labelled to show that they are radioactive material.

24 If items or equipment cannot be sold for the purpose they were originally designed (that is, they are no longer a "going concern"), advice should be sought from DSA and the RPA or RWA on the way forward. The most probable outcome is that the radioactive component/material is removed (see also the next paragraph) and returned to the stores organisation for separate disposal action at a later date. The remaining non-radioactive items can then be sold for scrap after they have been monitored for contamination. If the remaining items are uncontaminated, radiation warning signs are to be removed prior to the sale.

25 Removal of radioactive components from equipment is likely to be a specialised activity requiring specialised skills and equipment. RPA or RWA advice is to be sought as to the requirements for this work to be carried out in a designated area and as to the training and supervision needed for the work. Equipment containing radioactive components falling into this category are:

- 25.1 Smoke-detection systems, radiation-monitoring equipment; and some targets and drogues;
- 25.2 Luminised equipment e.g. control dials, luminised markers and some gauges;
- 25.3 Components containing GTLSs;
- 25.4 Aircraft counter-balance weights containing depleted uranium.

26 A statement of recommendations by and signature of a nominated suitably qualified and experienced person (SQEP) concerning compliance with legislation and future use or disposal (see JSP 392, Leaflet 12) will be required.

Sale of Ships

27 Disposal of any HM ships placed on the Commercial List (also known as the Disposal List) except those handed over to other Governments from the active fleet is to follow the procedures given in the Disposal Reserve Ship Manual Volume 1. Copies of this manual are available from Disposal and Reserve Ships Organisation, Portsmouth (DARSO). It is MOD policy that all ships are monitored for radioactive items prior to disposal. Records are to be retained by DARSO.

Gifting of Radioactive Equipment

28 Surplus radioactive items may only be gifted with the approval of the equipment manager. It is MOD policy not to gift to private museums, private citizens, companies or charities.

29 In addition to meeting the financial policy on gifting (see JSP 462 – Financial Policy Manual), surplus radioactive items may only be gifted or donated if the recipient organisation holds the appropriate RSA93 registrations or notifications. In supplying the item(s), the final MOD holder must comply with the appropriate environment agency terms and conditions and follow the same procedures detailed above for the sale of items. In particular, arrangements regarding transfer of title must be clearly stated and agreed.

30 Further details on gifts of radioactive equipment to museums are covered in Leaflet 31.

Transfer of High-Activity Sealed Radioactive Sources

31 Strict terms and conditions are applied to holders of high-activity sealed radioactive sources (HASS) (see Leaflets 3 and 9). These terms and conditions, which must be complied with, include requirements for transfer of HASS as follows:

- 31.1 Before a HASS may be transferred (regardless of whether this is a sale, lease or transfer within or external to MOD), the holder must first ascertain that the recipient holds the appropriate HASS authorisation or notification from the relevant environment agency or, in the case of transfer to a nuclear site that the recipient holds the appropriate authorisation from the nuclear regulator. Written confirmation that this is the case must be obtained;
- 31.2 The transfer of title and liability for safe management and disposal of the source when it becomes disused must be established and agreed in writing prior to transfer of the source;
- 31.3 The source must be supplied to the recipient accompanied by written information and photographs, its identification number, how it is marked, details of the radioactive content and, where appropriate, the identification number of the source container;
- 31.4 Containers must be marked with the container identification number, the source identification number, the name and activity of each radionuclide contained in the source at the date of receipt and the word radioactive and the ionising radiation symbol;

- 31.5 Holders must amend the HASS record to show the date of transfer, the name of the recipient, the address of the recipient, the type of recipient (e.g. manufacturer, supplier, next user, short or long-term storage, disposal site etc) and the recipient's permission number;
- 31.6 Within 14 days following the transfer, the holder must send a copy of the record showing the transfer details to the appropriate environment agency. If the transfer is to a nuclear site, then the holder must also send to the appropriate environment agency a copy of the acknowledgement of receipt of the HASS;
- 31.7 Transport of the source must be carried out in accordance with the appropriate transport regulations and radiation protection requirements (see Leaflet 10). Where a carrier is used to transfer the source, the carrier is not considered to be a holder and therefore the HASS record is to show details of transfer to the new holder and not the carrier.

Loan or Hire of Radioactive Items

32 When radioactive items are loaned or hired, the supplying MOD custodian must comply with the previous requirements and procedures for sale, donation or transfer of equipment as appropriate. In addition, the MOD custodian must retain the relevant notifications/approvals to hold the radioactive material and retain the appropriate facilities, safety and environmental management arrangements and qualified staff to ensure safe and effective storage and control of the item(s) on their return.

Records

33 Radioactive source lists, records of leak tests and registers of unsealed radioactive substances are to be retained by the ship, unit or establishment indefinitely following the disposal, gifting or transfer of the item. However, if the item is transferred to another MOD establishment, the period is 2 years (from the transfer date) for radioactive source lists, records of leak test and registers of unsealed radioactive substances. Source lists and source registers from ships that have been decommissioned and establishments that have closed should be archived in accordance with MOD policy described in Chapter 3. Records of items on loan must be kept throughout the period of loan by both those receiving and despatching loaned items.

34 Radioactive items returned to stores or transferred (sale or gifting) to another establishment or organisation should be included on the Disposals page of the Annual Holdings Return (see Leaflet 9).

Related Leaflets and References

35 Leaflets and References referred to within this Leaflet are shown in Table 1.

Table 1 Related leaflets and references

| Leaflet Number | Leaflet Title |
|-----------------------|--|
| 3 | Notification, approval and assessment – Introduction and use of sources of ionising radiation including radioactive substances |
| 9 | Storage, accounting and leak testing of radioactive material |
| 10 | Movement and transport of radioactive material |
| 12 | Accumulation and disposal of radioactive waste |
| 13 | Assessment and management of radioactively contaminated land |
| 31 | Museums |
| JSP 800 Vol. 4a | Dangerous goods by air regulations |
| JSP 800 Vol. 4b | Transport of dangerous goods by road, rail or sea |
| JSP 462 | Financial policy manual |
| JSP 336 | (insert title) |

Leaflet 11 Annex A

Return of Equipment Containing Radioactive Material to LCS Donnington

1 This annex details the process to be followed by Project Teams (in service equipment) and museums/units (legacy items) for returning to LCS Donnington.

2 Note: This process does not apply to routine return and replacement of in-service equipment.

Process

3 Project Teams (PTs) and others responsible for in-service equipment containing radioactive material should note that there is limited centralised storage available for these hazardous items and that the Radiation Safety Officer (RSO) at Donnington must be contacted before equipment is returned.

4 In accordance with JSP 886, PTs must carry out annual reviews to determine whether there is a justified need for MOD to continue to hold such items and should advise the DSA and RSO at Donnington as soon as items can be released for sale or disposal. PTs must also carry out and advise the RSO of the outcome of any review which the RSO may request if an item appears surplus to requirement by virtue of long term storage with no stock rotation.

5 Museums and units that have legacy equipment for disposal are to contact the RSO at Donnington who will decide if the equipment can be accepted.

6 Delivery Teams, Museums and Units. Before any item containing radioactive material is sent to Donnington, the RSO must be provided with the information listed below. DSA must also be provided with this information when items are released for sale or disposal.

6.1 Description and NSN of the equipment

6.2 Photograph of the item

6.3 Dimensions of the item (length, width, height and weight)

6.4 Number of items

6.5 Type and quantity of radioactive material in the item (eg: Radium-226 0.6 kBq)

7 Delivery Teams, museums and units should contact their Radiation Protection Adviser for assistance if the type and quantity of radioactive material in an item is not known.

Contacts

Radiation Safety Officer, Donnington:

Phone: 94480 2770 or 01952 672770

e-mail: DES LCS LS-Log-DON-B56-Whse Mgr (Santopietro, Sue Mrs)

Disposal Services Authority

Phone: 94240 8621 or 01869 258621

e-mail: DES DSA-Ccf2a (Head, Nicholas Mr)

Radiation Protection Adviser (Dstl):

Phone: 9380 768130 or 02392 768130