

**LEAFLET 11****REQUIREMENTS FOR THE TRANSFER (INCLUDING RETURN TO STORES), SALE, LOAN AND GIFTING OF RADIOACTIVE MATERIALS AND RADIOACTIVELY CONTAMINATED ITEMS****CONTENTS**

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**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.

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 AND PARALLEL ARRANGEMENTS**

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);
- Radioactive Substances Act 1993 (RSA93) (parallel arrangements);

- High activity Sealed Radioactive Sources and Orphan Sources Regulations 2005 (HASS) (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 which are detailed in paragraph 14.

11 Items incorporating radioactive substances that are returned to the stores organisation are not to be designated as radioactive scrap or waste. 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 to be returned to the appropriate stores organisation where the item will be assessed and arrangements made for repair or disposal through an approved route. The appropriate 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 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 on their transfer or disposal. Items already specifically identified as radioactive waste are also excluded from these arrangements.

14 It is essential that:

14.1 The receiving site (consignee) has an RSA93 Notification/Approval from the relevant environment agency to hold and/or dispose of prescribed radioactive materials, unless the articles are covered by an Exemption Order. Advice on which radioactive items can be accepted must be sought from the consignee in advance;

14.2 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;

14.3 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.

15 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:

15.1 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;

15.2 Items which are consigned without prior arrangements made with the consignee;

15.3 Items which will breach the site's approved limits from the relevant environment agency;

15.4 Items which on receipt are proven by the consignee not to be properly described in the consignor's certificate.

16 High-activity sealed radioactive sources (see Leaflet 3) are subject to additional requirements as outlined later.

## **SALE AND GIFTING OF RADIOACTIVE AND CONTAMINATED ITEMS**

17 The Disposal Services Agency (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. 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 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

NOTE: Where clearance certificates are issued with items or materials, 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".

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

19 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 RSA93 registrations 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 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.

20 MOD policy (see Volume 1 Chapter 4) prohibits the sale of items containing radium-226 to members of the general public. Consequently, such items 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.

21 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.

22 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:

22.1 That the recipient holds an RSA93 registration appropriate for the items being consigned – DSA should confirm that this is the case.

22.2 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.

22.3 That the recipient has agreed to receive the consignment – DSA should normally confirm that this is the case.

22.4 That the item(s) are marked and labelled to show that they are radioactive material.

23 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 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.

24 Removal of radioactive components from equipment is likely to be a specialised activity requiring specialised skills and equipment. RPA 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. Components falling into this category are:

24.1 Components containing radioactive sources, such as smoke-detection systems, radiation-monitoring equipment and some targets and drogues;

24.2 Luminised equipments and components, such as control dials, luminised markers and some gauges;

24.3 Components containing GTLSs;

24.4 Aircraft counter-balance weights containing depleted uranium;

24.5 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).

25 Further Information on the disposal of items by sale is detailed in Pamphlet 9 of JSP 336 Defence Supply Chain Manual.

### **Sale of Ships**

26 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**

27 Surplus radioactive items may only be gifted with the approval of the equipment manager - MOD does not gift to private museums, UK citizens, companies or charities.

28 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.

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

### **Sale and gifting of high-activity sealed radioactive sources**

30 There are a number of additional requirements to be followed for the transfer of high-activity sealed radioactive sources (see below).

### **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 in the specified format (see record form at Leaflet 3) 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 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 to DSA 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 11. Records of items on loan must be kept throughout the period of loan by both those receiving and despatching loaned items.

**RELATED LEAFLETS**

34 Leaflets referred to within this leaflet are shown in Table 1.

Table 1 Related Leaflets

<b>Leaflet Number</b>	<b>Leaflet Title</b>
3	Notification, approval and assessment of the 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 336	Defence supply chain manual
JSP 800 Vol. 4b	Transport of dangerous goods by road, rail or sea
JSP 462	Financial policy manual

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