

**CHAPTER 4****RADIOACTIVE SUBSTANCES CONTROL POLICY****Contents**

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**GENERAL**

1 The Radioactive Substances Act 1993 (RSA93) is the main legislation covering the control of radioactive substances in the United Kingdom. The Act does not apply to premises occupied on behalf of the Crown for Naval, Military or Air Force purposes. However, MOD policy is to implement parallel arrangements to those required by the Act.

2 Practices involving certain high level sealed radioactive sources are subject to additional control measures under the High Activity Sealed Radioactive Sources and Orphan Sources Regulations 2005 (HASS). MOD policy is to implement parallel arrangements, as these Regulations do not apply to MOD premises.

3 Certain aspects of the control of radioactive substances on nuclear licensed sites are regulated under the Nuclear Installations Act 1965 (NIA65). Licensing under this Act is not applicable to the Crown and, on MOD nuclear sites, parallel standards are applied through authorisation conditions by the Defence Nuclear Safety Regulator (DNSR) internal nuclear regulators as described in JSP 518.

4 NIA65, RSA93 and HASS Regulations 2005, as appropriate, are only applied at MOD contractor operated sites such as the nuclear licensed site at Devonport where it is clear that MOD does not have the "controlling mind".

5 A number of arrangements for the control and accounting for radioactive substances, articles and equipment are embodied in the Ionising Radiation Regulations 1999 (IRR99) which are made under the Health and Safety at Work etc Act 1974 (HASA) and apply directly to the MOD in Great Britain. Application of the HSWA and its regulation by the HSE is described in JSP 375. In Northern Ireland, the applicable legislation is the Ionising Radiations Regulations (Northern Ireland) 2000.

6 As stated in JSP 375, standards adopted in overseas Commands should, as far as is reasonably practicable, be no less stringent than those applying in the United Kingdom, subject to the discretion of local commanders and taking cognisance of local statutory requirements.

### **PARALLEL ARRANGEMENTS IN MOD**

7 The policy on the application of parallel arrangements under RSA93 and HASS 05 with respect to radioactive substance control is described below. The parallel arrangements apply across MOD with the exception of MOD's nuclear authorised sites where the control of non-mobile radioactive substances is regulated by DNSR. Detailed instructions on the arrangements are contained in Volume 2.

### **RSA93 Parallel Arrangements in England and Wales**

8 A Memorandum of Understanding between MOD and the EA formalises an agreement whereby the EA carry out a number of quasi regulatory functions which together with additional measures within MOD are intended to satisfy the Secretary of State's requirement that standards are, as far as is reasonably practicable, at least as good as those required by legislation. The main features administered by the EA are summarised below:

#### Keeping and Use of Radioactive Substances

9 To parallel the registration requirements of Sections 7 and 10 of RSA93, EA issues a Certificate of Notification to MOD users, which is equivalent to the Certificate of Registration required by civil users.

10 The Certificate of Notification carries terms and conditions for that certificate. The standard terms and conditions for MOD sites have been agreed centrally and compliance is a MOD mandatory requirement.

#### EA Inspections

11 EA are authorised by MOD to carry out inspections of premises where radioactive materials are held. These inspections will only be carried out by arrangement with CO/HE. EA will bring to the attention of the Commanding Officer/Head of Establishment (CO/HoE) any areas of non-compliance. The CO/HoE should inform SSDC of the outcome of any EA inspection.

12 Inspections carried out by EA do not include any remit to review MOD's security arrangements.

13 A number of measures carried out and administered internally within the MOD are necessary to complete the parallel arrangements to satisfy the Secretary of State's policy statement on Safety, Health, Environmental Protection and Sustainable Development. They are:

#### MOD Database of Radioactive Materials

14 A database of MOD radioactive materials is maintained to support the notification process.

#### Audits and RPA Advisory Visits

15 Audits are carried out at every level in MOD. Appropriate audits at each level are to include the control of radioactive substances. Dstl carry out RPA advisory visits across the MOD other than nuclear weapons and nuclear propulsion programmes areas. The advice provided is extended to include advice on RSA93 matters. Generic findings of the RPA are forwarded to the policy branch of MOD for scrutiny and development of policy where appropriate.

#### MOD Safety and Environment Boards, Committees and Working Group Structure

16 Compliance with the parallel arrangements laid down in JSP 392 is monitored through the Defence Environment and Safety Board structure.

**RSA93 Parallel Arrangements in Scotland**

17 A Memorandum of Understanding between MOD and the Scottish Environment Protection Agency (SEPA) is currently being drafted.

**RSA93 Parallel Arrangements in Northern Ireland**

18 There is currently no arrangement in place with the Department of Environment-Northern Ireland (DOENI).

**Application of RSA93 to Contractors and Museums**

19 Where contractors and museums operate on premises within MOD managed sites, disapplication of RSA93 is appropriate provided that:

19.1 The premises are occupied on behalf of the Crown for MOD purposes and

19.2 MOD arrangements for equivalent/parallel standards and management arrangements are applied through contractual or written agreements

20 Disapplication of RSA93 should be considered on a case by case basis and involve, as a minimum, consultation with the RPA and the external environmental regulator. Reference should also be made to the relevant Memorandum of Understanding with the external environment agency.

21 In cases where there is doubt as to whether the conditions of Para 19 are met, SSDC should also be consulted. Where contractor or museum premises are not on an MOD managed site, then, the case for disapplication is to include a detailed statement as to how the conditions of Para 19 are to be met.

22 General guidance on the management of contractors is contained in JSP 375 Volume 2.

**HASSR 2005 Parallel Arrangements**

23 For non-nuclear MOD sites, arrangements for Notification of the Environment Agencies described under RSA93 above have been extended to encompass the additional requirements for HASS. The main features which extend or differ from the RSA93 parallel arrangements are:

23.1 An application for a HASS Notification is to be made by the prospective holder direct to the relevant environment agency. The practice, which utilises the HASS, may not commence until the Certificate of Notification has been received from the relevant environment agency.

23.2 Arrangements for the physical security of HASS are, so far as reasonably practicable, to parallel those operative on civil sites. Advice on physical security should be sought through the Principal Security Adviser of the TLB concerned.

24 The regime for the control of HASS held by MOD nuclear authorisees mirrors that pertaining to civil nuclear licensees and is administered by the DNSR. This regime does not extend to mobile HASS held by authorisees, where the standard parallel arrangements for HASS apply.

**PROCUREMENT AND USE OF RADIOACTIVE MATERIALS****Use of Radioactive Material**

25 Radioactive material is not to be used in MOD equipment where use of alternative materials is reasonably practicable and consistent with meeting operational requirements. Under no circumstances is radium-226 to be used for luminous items.

26 Where the use of radioactive material is essential, the prior risk assessment carried out in accordance with IRR99 is to address the use of possible alternative radionuclides. This is to enable the selection of radionuclide(s) which carry the lowest reasonably practicable overall risk, consistent with meeting operational requirements. The cost and manner of disposal of radioactive materials used will also need to be considered by IPTL's at an early stage of the assessment.

#### **Consultation with an RPA prior to the introduction of new equipment**

27 In projects for which they have responsibility, the Defence Equipment and Support Integrated Project Team Leader (IPTL) must include in contracts a requirement to consult with an RPA prior to the introduction of any new radioactive material or equipment capable of producing ionising radiation.

#### **Disposal of Redundant or Surplus Radioactive Materials**

28 Accumulation of surplus or redundant radioactive material is to be avoided. It should normally be disposed of within 3 months, usually via the stores system. Where items cannot be returned through the stores system, the RPA is to be consulted for advice, and where appropriate, SSDC should be advised.

### **ACCOUNTING AND TRANSFER OF RADIOACTIVE MATERIAL**

#### **Records and Accountancy**

29 All radioactive materials including those exempt from the need for a Notification are to be recorded and accounted for.

#### **Transfer of Radioactive Articles**

30 When radioactive articles are transferred / consigned from one site to another, a full audit trail of the supply and receipt is to be maintained. The consignor must ensure that the consignee has the appropriate regulatory permits (e.g. Notification, Registration, etc) in place before commencing the transfer.

#### **Disposal of Radioactive Items by Sale or Donation**

31 The disposal of radioactive items by sale or donation does not constitute disposal as radioactive waste and therefore does not require regulatory approval. However, the relevant environment agency conditions prohibiting the sale or supply of materials, unless it is suitably marked and/or described, are to be met. Furthermore, with the exception of exempt articles, no radioactive items are to be disposed of by sale or donation unless it is first ascertained that the proposed recipient has appropriate registration under RSA93. Proof that this was carried out should be retained for audit.

32 Sales of radioactive articles to overseas customers may be subject to special rules or conditions. In all such cases, advice is to be sought from the appropriate RPA before sale arrangements commence.

33 No items containing radium-226 are to be offered for sale to or donated to the general public.

#### **Disposal of Ships**

34 It is MOD policy that all major platforms, including ships and aircraft are monitored for radioactive items prior to disposal.