

LEAFLET 13**ASSESSMENT AND MANAGEMENT OF RADIOACTIVELY CONTAMINATED LAND****CONTENTS**

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	ASSESSMENT AND MANAGEMENT OF RADIOACTIVELY CONTAMINATED LAND
1	Scope
2	Statutory Requirements and Parallel Arrangements
6	Guidance
8	Advice
	Duties
10	Commanding Officer and Head of Establishment (CO/HoE)
11	Radiation Safety Officer (RSO)
12	Radiation Protection Supervisor (RPS)
14	Employees
15	Risk Assessment
16	Requirements for Assessment and Management/Remediation Work on Sites/Establishments
19	Incidents
20	Annual Drigg Allocation Monitoring
21	Records
23	Related Leaflets

Table

Page

1	Related Leaflets.....	5
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ASSESSMENT AND MANAGEMENT OF RADIOACTIVELY CONTAMINATED LAND**SCOPE**

1 This Leaflet is aimed principally at providing duty holders with guidance on the assessment and management of radioactively contaminated land on MOD sites and establishments and to sign post relevant documents and sources of specialist advice.

STATUTORY REQUIREMENTS AND PARALLEL ARRANGEMENTS

2 The scope of the Contaminated Land Regime as enacted under Part 2A of the Environmental Protection Act 1990 in England, Wales and Scotland has been extended to cover radioactively contaminated land.

3 The Contaminated Land Regime now applies to radioactively and chemically contaminated land on non-nuclear defence sites. Details about the Regime and overall legal position are presented in Volume 2, leaflet 2 of JSP 418: Sustainable Development and Environment Manual as well as Defence Estates Practitioner Guide 01/07 – Contaminated Land Management: Land Quality Assessment (LQA) Management Guide.

4 MOD nuclear sites will be regulated separately owing to the fact that MOD is bound by the liability provisions arising from the Paris Convention as transposed under Section 7 of the Nuclear Installations Act 1965.

5 In addition to Part 2A the following specific legislation applies directly to radioactively contaminated land:

- Management of Health and Safety at Work Regulations 1999 (applies directly);

- Ionising Radiations Regulations 1999 (IRR99) (applies directly);
- Radioactive Substances Act 1993 (RSA93) (parallel arrangements).

GUIDANCE

6 General guidance on MOD policy and approach to the assessment and management of contaminated land is provided by:

6.1 JSP 418, Volume 2, Leaflet 2 MOD Sustainability and Environment Manual;

6.2 DE PG 01/07 – Contaminated Land Management Quality Assessment (LQA) Management Guide.

7 Specific guidance on the assessment (site characterisation) and management of radioactively contaminated land on nuclear and defence sites is provided by the Safegrounds Project initiative which is supported by MOD and has produced various guides which can be downloaded for free from the Safegrounds web site at: www.safegrounds.com. The web site also contains the current HSE and Environment Agency Guidance.

ADVICE

8 Specific RPA advice is available from Dstl ESD.

9 Specific advice and support on contaminated land issues is available from the Defence Estates Construction Support Team based at: St George's House, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL.

DUTIES

Commanding Officer and Head of Establishment (CO/HoE)

10 The CO/HoE has a duty to the Secretary of State, and a personal responsibility, to protect the environment and to secure the health, safety and welfare of their staff at work. The CO/HoE is also required to protect persons not in MOD employment against risks to their health or safety arising from the MOD work activities (e.g. the general public). 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)

11 The Radiation Safety Officer's (RSO) role is essentially one of co-ordination and audit, ensuring compliance with the safety management arrangements. In the context of this Leaflet, the RSO or nominated competent person is to co-ordinate the assessment and management of radioactively contaminated land.

Radiation Protection Supervisor (RPS)

12 Where sites and establishments have areas, including areas of radioactively contaminated land, designated as controlled or supervised (see Leaflet 4), radiation employers must appoint an RPS for each designated area concerned. The prime duty of the RPS is to ensure compliance with the IRR99 in respect of work carried out in the designated area be it survey work or remediation – in practice, the RPS will achieve this by ensuring that work is carried out in accordance with the local orders for radiation safety (see Leaflet 16). Please note that survey and site investigation work to define the nature and extent of radioactively contaminated land do not routinely require designation as controlled or supervised areas. However, intrusive investigations into areas of known activity will require careful planning and control by the RPS. This should be undertaken in consultation with the RPA.

13 The RPS is to also ensure the adequate control of the radioactive material/contaminated land through compliance with the requirements of the RSA93 and associated exemption orders. This is particularly important during remediation of radioactively contaminated land on non-nuclear defence sites where the RPS will need to arrange for the accumulation and disposal of the radioactive material.

Employees

14 It is the responsibility of all employees to ensure that they are familiar with the content of local orders including those relating to radioactively contaminated land and comply with them. Employees must also bring to the attention of the appropriate supervisor or manager any shortcomings they identify in the arrangements for the assessment and management of radioactively contaminated land including the arrangements for the accumulation and disposal of the radioactive materials.

RISK ASSESSMENT

15 Where work involves ionising radiation there is a requirement to ensure that the risk assessment considers radiological as well as non-radiological hazards. The requirement for a prior risk assessment (which must be made before a new activity involving work with ionising radiation begins), compliments this risk assessment. The form of these risks assessments and the actions to be taken arising from it are detailed in Leaflet 2.

REQUIREMENTS FOR ASSESSMENT AND MANAGEMENT/REMEDiation WORK ON SITES/ESTABLISHMENTS

16 Preliminaries:

- 28 days prior notification to HSE where radioactively contaminated land is known or suspected;
- Plan work and prepare method statements identifying hold points and dose rates within which the work can be done;
- Undertake risk assessment;
- Formulate contingency plan to address incidents and accidents;
- Provide dosimetry to enable exposure to be monitored;
- Seek advice from RPA and Defence Estates as required.

17 Site Surveys/Investigations:

- Seek advice from RPA and Defence Estates as required;
- Surveys/investigations do not routinely require designation of controlled or supervised areas or require classified workers;
- Intrusive investigations into areas of known activity are to be carefully planned and controlled;
- Personnel should wear appropriate PPE and dosimetry, monitor clothing and footwear regularly, do not eat, drink or smoke during work, cover open wounds with waterproof plasters prior to work and remove PPE and wash prior to leaving site;
- Sufficiently detailed records are to be kept. Advice on record retention is currently being developed by the CIRIA Safegrounds initiative and is available from their website: www.ciria.org/safegrounds/ .
- Do not remove radioactive artefacts as samples but take soil/material adjacent to the artefact for analysis;

- Record dose rates at measured distance from the artefact (1m, 0.5m etc);
- Samples suspected to contain radioactive material should only be dispatched to an appropriate laboratory following agreement and arrangements for disposal have been made. Every effort should be made to ensure that samples fulfil the requirements for and are dispatched as 'excepted packages' in accordance with the Carriage of Dangerous Goods and Transportable Pressure Equipment Regulations 2007. Further details are available from Leaflet 10 and JSP 800 Volume 4b.

18 Management/Remediation:

- Ensure adequate controls and containment;
- Ensure use of a competent contractor. Advice and assistance can be obtained from Defence Estates;
- Ensure adequate waste control and minimisation;
- Ensure adequate environmental monitoring;
- Ensure site end points/clearance criteria provide required protection of human health and the environment and are consistent with best practice. Advice and assistance is available from Dstl ESD Alverstoke and the Defence Estates Construction Support Team;
- Arrange disposal (for Low Level Waste (LLW) consignment to Drigg involving Thorium and Radium waste streams, Defence Estates must be informed at the earliest opportunity as they are responsible for securing the necessary Drigg allocation);
- Maintain adequate records to document work and provide an audit trail;
- Seek advice from RPA and Defence Estates as required.

INCIDENTS

19 Accidental releases of radioactive material may require notification to the RPA, MOD, HSE and EA/SEPA/EHS. The procedures to be followed after an incident are detailed in Leaflet 14.

ANNUAL DRIGG ALLOCATION MONITORING

20 To enable MOD to continue to secure and effectively manage the required annual Drigg allocation for LLW comprising radium and thorium waste streams copies of all British Nuclear Group (BNG) forms (D1 to D6 as appropriate) must be sent promptly to Defence Estates at the address shown previously. In addition Defence Estates must be provided with regular updates of the volume and activity of LLW being consigned to Drigg. Defence Estates is required to inform the BNG immediately of any allocation surplus so that it can be re-allocated to other BNG customers.

RECORDS

21 When undertaking surveys/investigations and implementing management measures including remediation, the following records should be kept:

- 21.1 Instruments used;
- 21.2 Background measurements etc.;

21.3 Details of the location and size of areas of radioactivity and nature of materials;

21.4 Photographs;

21.5 Details of environmental monitoring, remediation and validation work undertaken.

22 Further guidance on record keeping is part of the Safegrounds Initiative (www.safegrounds.com).

RELATED LEAFLETS

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

Table 1 Related Leaflets

Leaflet Number	Leaflet Title
2	Risk Assessments
3	Application for Permits (Notification or Approval) and agreement to the introduction and use of sources of ionising radiation including radioactive substances
4	Restriction of exposure to radiation
14	Investigation, notification and reporting of unusual radiation events
16	Local orders for radiation safety

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