

Leaflet 13

Assessment and Management of Land Contaminated with Radioactivity

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Scope

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

Statutory Requirements

2 Part IIA of the Environmental Protection Act (1990) (EPA90 Part IIA) sets out a regulatory framework for the identification and remediation of contaminated land where the associated risks to receptors (e.g. members of the public or workers) are deemed to be unacceptable.

3 The scope of the contaminated land regime in England, Wales, Scotland and Northern Ireland has been extended to cover land contaminated with radioactivity.

4 The contaminated land regime also applies to radioactively and chemically contaminated land on non-nuclear defence sites. MOD nuclear sites are regulated under parallel arrangements to the Nuclear Installations Act 1965.

5 In addition to EPA90 Part IIA, the following specific legislation applies directly to land contaminated with radioactivity on the MOD estate or is applied indirectly through parallel arrangements designed to achieve equivalent standards:

- Management of Health and Safety at Work Regulations 1999 (applies directly);
- Ionising Radiations Regulations 1999 (IRR99) (applies directly);
- Environmental Permitting (England & Wales) Regulations 2010 (EPR10) (as amended) (parallel arrangements);
- Radioactive Substances Act 1993 (Scotland & Northern Ireland) (RSA93) (as amended) (parallel arrangements).

Guidance

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

- JSP 418, Volume 2, Leaflet 2 MOD Sustainability and Environment Manual;
- DIO PG 01/07 – Contaminated Land Management Quality Assessment (LQA) Management Guide.

7 Specific guidance on the assessment (site characterisation) and management of land contaminated with radioactivity 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 .

Advice

8 Specific advice and support on contaminated land issues is available from the Defence Infrastructure Organisation (DIO) Environmental Liability Management Group, St George's House, Kingston Road, Sutton Coldfield, West Midlands, B75 7RL.

9 Where assessment, remediation or other work is to be carried out on land contaminated with radioactivity, specific radiation protection advice should be sought from the Dstl Environmental Sciences (ESD) Radiation Protection Adviser (RPA) or Radioactive Waste Adviser (RWA).

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.

Radiation Safety Officer (RSO)

11 The RSO's 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 land contaminated with radioactivity. Where remediation is carried out, the RSO (or other suitable person(s)), in consultation with the RPA/RWA, must ensure compliance with the relevant EPR10/RSA93 permit or exemption conditions for accumulation and disposal of radioactive waste (unless this permit is formally the responsibility of a contractor undertaking the work).

Radiation Protection Supervisor (RPS)

12 Where sites and establishments have areas of land contaminated with radioactivity, 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 the land contaminated with radioactivity 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.

Workplace Supervisor (WPS)

13 In cases where work with ionising radiation is carried out, but where the risk assessment shows that designated areas are not required, a WPS is to be appointed with duties to ensure that the work with ionising radiation is carried out in accordance with the local orders for radiation safety.

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 land contaminated with radioactivity, 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 land contaminated with radioactivity including the arrangements for the accumulation and disposal of the radioactive materials.

Risk Assessments and Land Quality Assessments

15 A Land Quality Assessment (LQA) is essentially a risk assessment which considers various pollutant linkages which may give rise to harm in a receptor. The outcome of this assessment will enable the duty holder to determine appropriate plans for management of the land contamination. Such plans may include restriction of access and 'permit to dig' arrangements or full remediation of affected areas.

16 Where work involves ionising radiation there is a requirement to ensure that the risk assessment considers radiological as well as non-radiological hazards. A prior risk assessment (PRA) is required before any new activity involving work with ionising radiation begins and should complement the LQA. The form of these risks assessments and the actions to be taken arising from them are detailed in Leaflet 2.

Requirements for Assessment and Remediation Work on Sites/Establishments

17 Specific requirements for assessment and remediation work should be determined following careful planning and risk assessment. This should be done in consultation with the RPA and DIO to ensure that radiological doses are kept as low as reasonably practicable, radioactive waste is appropriately managed and that the work is carried out to a satisfactory end point in the context of the contaminated land regime.

18 In most cases, it is likely that assessment and remediation work will be undertaken by a specialist environmental contractor or Dstl ESD. It will therefore be necessary to ensure adequate co-operation between employers.

Incidents

19 Any accidental releases of radioactive material should be notified to the RSO and the RPA. Some incidents may require further notification to the regulatory bodies. The procedures to be followed after an incident are detailed in Leaflet 14.

Records

20 All records are to be retained in accordance with JSP 392 Chapter 3 Record Keeping and JSP 441 Defence Records Manual.

21 Advice on what information should be retained can be found in the Safegrounds document W21 available on their webpage: www.safegrounds.com

Related Leaflets

22 Leaflets referred to within this Leaflet are shown in Table 1.

Table 1 Related Leaflets

Leaflet Number	Leaflet Title
2	Risk assessments
3	Introduction and use of radioactive substances and radiation generators
4	Restriction of exposure to radiation
14	Accident and incident investigation and reporting
16	Local orders for radiation safety

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