

# 13 Assessment and Management of Land Contaminated with Radioactivity

## Scope

1. This chapter 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:

- a. Management of Health and Safety at Work Regulations 1999 (applies directly);
- b. Ionising Radiations Regulations 2017 (IRR17) (applies directly);
- c. Environmental Permitting (England and Wales) Regulations 2016 (EPR16) (as amended) (parallel arrangements);
- d. Environmental Authorisations (Scotland) Regulations 2018 (EASR18) (parallel arrangements); and
- e. Radioactive Substances Act 1993 (Northern Ireland) (RSA93) (as amended) and associated Exemption Orders.

## Guidance

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

- a. JSP 418, Management of Environmental Protection in Defence Volume 2, Chapter 2 MOD Sustainability and Environment Manual; and
- b. 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<sup>1</sup>

## **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 DRPS Radiation Protection Adviser (RPA) Body or Radioactive Waste Adviser (RWA).

## **Duties**

10. Duties as detailed in Chapter 39 apply.

### **Radiation Safety Officer (RSO)**

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

## **Risk Assessments and Land Quality Assessments**

12. 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.

13. Where work involves ionising radiation there is a requirement to ensure that the risk assessment considers radiological as well as non-radiological hazards. A radiation risk assessment (RRA) is required before any new activity involving work with ionising radiation begins and should complement the LQA.

## **Requirements for Assessment and Remediation Work on Sites / Establishments**

14. 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.

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

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<sup>1</sup> [www.safegrounds.com](http://www.safegrounds.com).

## **Incidents**

16. 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 Chapter 14.

## **Records**

17. All records are to be retained in accordance with JSP 392 Chapter 3 (Record Keeping) and JSP 441 (Information, Knowledge, Digital and Data in Defence).

18. Advice on what information should be retained can be found in the Safegrounds document W21 available on their webpage: [www.safegrounds.com](http://www.safegrounds.com).