

Non-radioactive and radioactive contamination

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7 October 2009



Environmental regulation regimes

➔ Part 2A

➔ Planning

➔ Nuclear Site Licensing

Content

- ➔ What is Part 2A?
- ➔ Radioactive and non-radioactive contamination
 - ➔ Similarities
 - ➔ Differences
- ➔ Progress and recent developments
- ➔ The future

Our approach to land contamination

- ➔ Top priority - prevent land contamination
- ➔ Land affected by contamination to be brought back into beneficial use
- ➔ Land assessment and remediation to be carried out voluntarily:
 - ↳ Polluter or landowner acts on own accord
 - ↳ Developer cleans up the land when it becomes available for redevelopment under the planning regime
- ➔ Where voluntary action fails, seek land remediation regulatory action with Part 2A as a last resort

What is Part 2A?

- ➔ Introduced 2000/01; extended in 2006/7 to radioactivity
- ➔ Applies to current land use
- ➔ Designed to deal with legacy of contaminated land posing greatest risks
- ➔ Significant harm (or significant possibility of)
- ➔ Local authorities inspect their areas, and ‘determine’ contaminated land sites
- ➔ We inspect and enforce remediation of ‘Special Sites’

Radioactive and non-radioactive contamination – common ground

- ➔ Part 2A only applies to current land use
- ➔ Staged development of conceptual model fundamental
 - ➔ e.g. approach set out in CLR 11

Common ground ii.

- ➔ For land to be contaminated there needs to be a 'significant pollutant linkage'
 - ➔ Pollutant
 - ➔ Pathway
 - ➔ Receptor (subject to significant harm etc.)

- ➔ Contaminated land is remediated by breaking the linkage

Radioactive and non-radioactive contamination - differences

Receptors			
	Non-rad	Rad (E&W)	Rad (Scot)
Human			
Water			(defined in terms of impact on non-human species)
Non-human species			
Property			

Differences ii.

⇒ Radioactive contaminated land

- ⇒ Statutory – 3mSv/y dose threshold; ICRP framework
- ⇒ Non-statutory – RCLEA screening methodology

⇒ Chemical contaminated land

- ⇒ Non-statutory - CLEA, SGVs

CLEA project

- To develop tools that provide a Government supported methodology that help estimate chronic health risks to people from soil contamination
- To provide generic assessment levels of contamination in soil below which these risks are considered minimal
- To provide a starting point to help assess risks, for instance under Part 2A of the Environmental Protection Act 1990

CLEA project ii.

- CLEA model is exposure model
- Can be used for any chemical for which toxicological data exists
- Soil Guideline Values produced for approx 10 substances with multi-Govt Agency support
- Others are developing for other substances

RCLEA (Radioactive contaminated land exposure assessment)

- ➔ Exposure assessment model
- ➔ Hosted on Environment Agency website
- ➔ Intended for the first stage of a tiered assessment under Pt 2A
- ➔ Applies to long-term radiation exposure situations that may require remedial action to reduce or avert individual doses ('interventions')
- ➔ Used same scenarios as the CLEA methodology for non-radioactive contaminated land

Dealing with contaminated land

- ➔ Our second report on Part 2A and first to cover Wales published March 2009
- ➔ Report covers period from introduction of legislation until end of March 2007
 - ➔ No work on sites concerned radioactive contaminated land



Dealing with contaminated land in England and Wales

A review of progress with Part 2A of the Environmental Protection Act 2000-2007

Dealing with contaminated land

➔ Key headlines:

- ↳ Most authorities have inspected less than 10 per cent of area
- ↳ 781 sites determined with 35 *special sites*
- ↳ 149 sites remediated
- ↳ Many cases have costs met by the tax payer

➔ Slow progress?

- ↳ Most authorities expect less than 10 per cent of area to meet definition under Part 2A
- ↳ 90 per cent of land contamination will be dealt with voluntarily
- ↳ More than 30,000 inspections carried out

Progress – radioactive contaminated land and Part 2A

- ➔ Our original estimate - at most a handful of sites would end up being determined as radioactive contaminated land
- ➔ Early consideration has been given to several sites, but no sites in England and Wales have yet been taken further

Soil framework directive

- ➔ Various proposals for Directive
- ➔ Objectives include:
 - ↳ Identify and remediate contaminated land
 - ↳ Soil status reports
 - ↳ Establish priority areas for soil degradation
 - ↳ General requirement to prevent soil pollution
- ➔ Most countries support soil protection but some concerned about provisions for contaminated land
- ➔ Directive could drive enormous change
- ➔ Basic Safety Standards Directive has already driven radioactive contaminated land legislation

Radon

- ➔ Part 2A radioactive regs said: “substance’ means, whether in solid or liquid form or in the form of a gas or vapour, any substance which contains radionuclides that are or have been processed as part of a work activity or past practice, but shall not include radon gas and any radionuclide present as a result of the radioactive decay of radon”
- ➔ Recent Scottish amendment regs removed exclusion for radon and its daughters
- ➔ Similar changes may be made in England and Wales

Common expectations work – NDA and regulators

- ➔ NDA, HSE, EA and SEPA working to set out shared expectations for land quality management – consensus and differences
- ➔ Interpret expectations to ensure they are unambiguous
- ➔ Provide a framework for dialogue against which progress in land quality management can be mapped;
- ➔ Promote positive action to manage land quality in a consistent, proportionate and sustainable manner; and,
- ➔ Propose for consideration potential improvements in legislation, policy and strategic guidance that may be identified

Questions?

