

NuLEAF Steering Group

Planning Guidance for On-site Disposal of Radioactive Waste from Nuclear Sites

3 September 2019

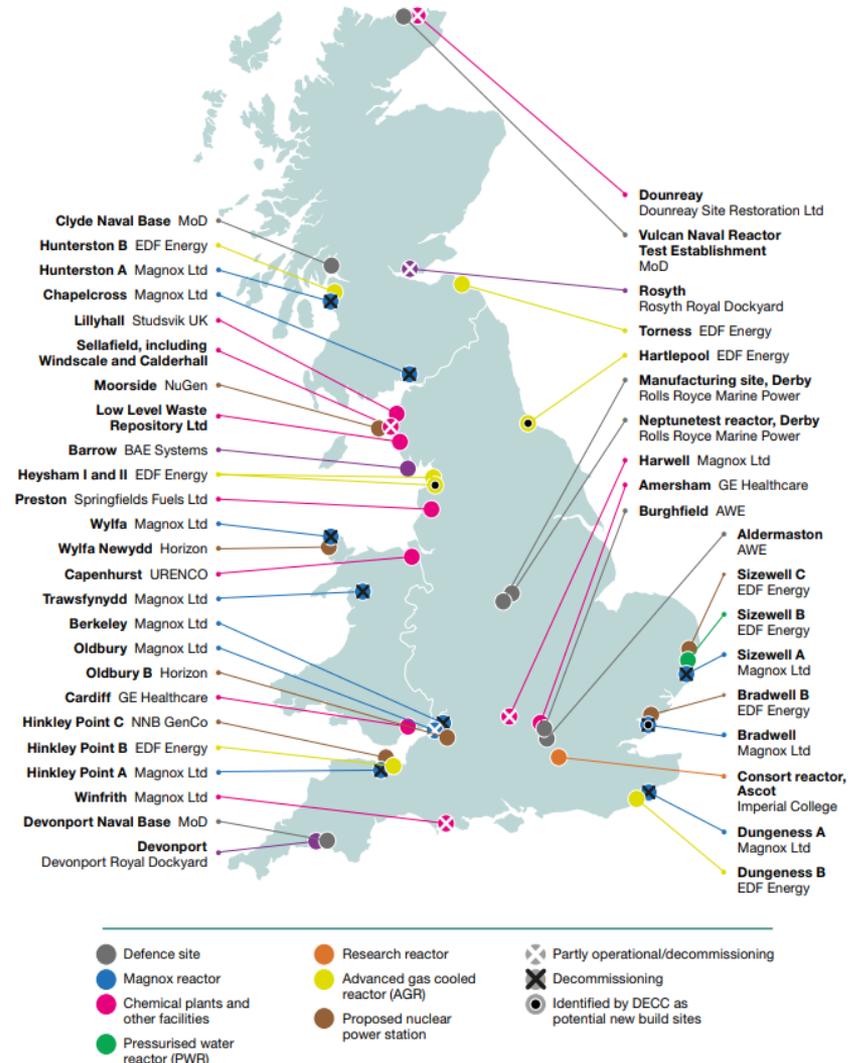
Agenda

- Background
- Advantages and disadvantages
- Contents and form of the guidance
- Context of guidance relative to other policies
- Glossary of terms
- Q&A
- Discussion

On-site Disposals

Background

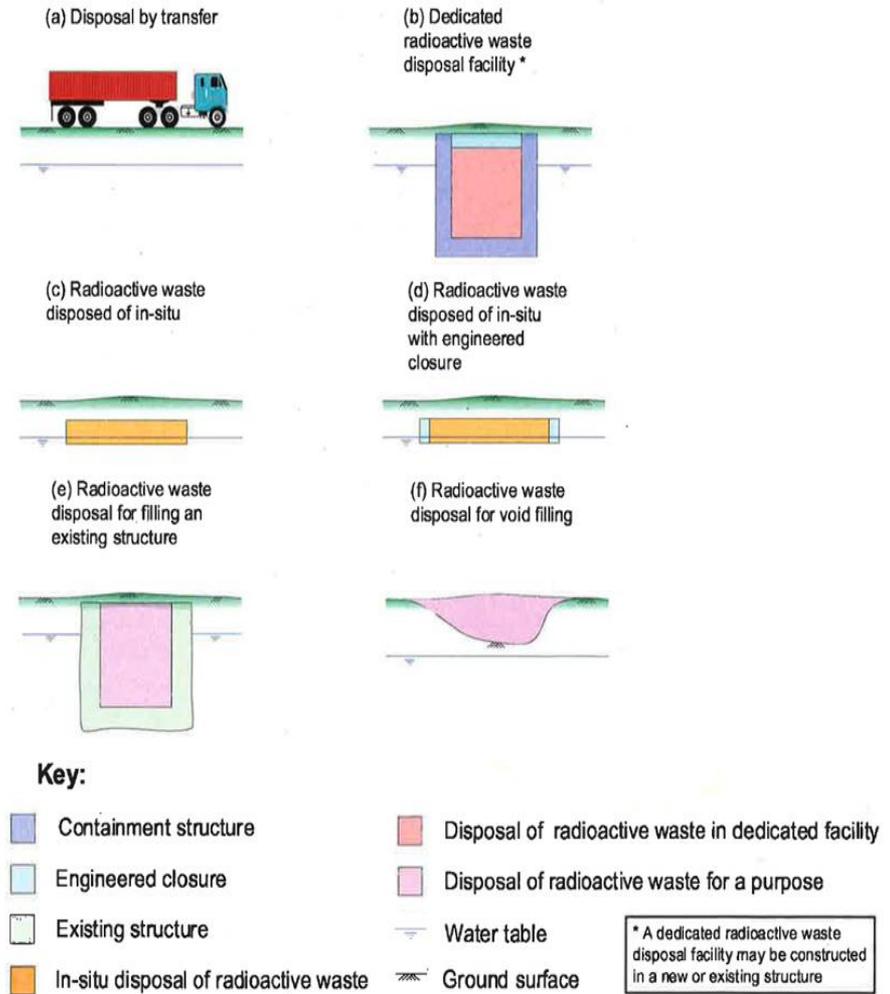
- The UK currently has 36 licensed nuclear sites, including power stations, MOD facilities, nuclear fuel processing facilities, and facilities for research, healthcare and waste processing.
- Of these 36 sites, 20 are being decommissioned.
- Given the large number and scale of the decommissioning projects taking place in the 2020s and 2030s, we anticipate that during these final stages as more demolition work is undertaken large amounts of waste will be generated in the form of rubble, concrete, brick, soil etc.
- Under some circumstances it may be safe to leave lightly contaminated structures in-situ or use lightly contaminated rubble to fill voids. These methods of waste disposal are collectively called on-site disposal.
- The guidance will be provided for local planning authorities and site operators in England to assist in the preparation of and determination of planning applications in relation to this waste disposal method.



On-site Disposals

Background

- Radioactive waste management should take account of a range of possible site end states and opportunities to optimise site clean-up.
- In some circumstances, it may be necessary or appropriate to remove all low and very low level waste from a site which is being decommissioned.
- In some circumstances it may be more appropriate to dispose of some waste on the site if, for example, the environmental impact from excavating and transporting the waste from site.
- There are several waste management options available to site operators as set out in the GRR and shown in the diagram. This guidance will cover the following options:
 - In-situ Disposal
 - Disposal for a purpose



Advantages and disadvantages

On-site disposal complies with international and domestic safety standards and legislation whilst offering an opportunity to optimise the decommissioning process through:

- Reduced waste generation
- Reduced lorry traffic
- Reduced pollution
- Earlier re-use of sites
- Reduced costs (nuclear liability, licence, remediation)

There may be some disadvantages to on-site disposal, namely that areas of the site may need to remain under environmental permit for years or decades which could have implications for the future use of these areas.

Contents and form of the Guidance

The document is envisaged to provide “best practice” guidance which is concise and practical in nature.

Introduction

Scene setting

Types of waste management options, advantages and disadvantages to on-site disposal, context regarding the planning requirements for waste disposal.

Roles and responsibilities

Clearly identify the responsibilities of government, regulators, site operators and planning officers.

Making it clear that regulators will provide the permitting decision and that it is separate from planning decisions.

When is planning permission required

Route Map which identifies the point at which a planning application would be made to the local authority.

Process

Relationship to other permitting requirements (including timings of planning applications within the overall consenting process),
What information is to be submitted with a planning application.

Case Studies

Generic case studies which link back to different types of sites and types of on-site disposals

Pro-forma style – 2 sides A4 max.

Glossary of terms

Decommissioning

Taking a facility permanently out of service once operations have finally ceased, including decontamination and full or partial dismantling of buildings and their contents.

Development

A “development” is defined in Section 55 of The Town and Country Planning Act 1999 as *“the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land.”*

Disposal for a purpose

To use lightly contaminated material to fill voids or existing structures. This type of disposal could be an option where otherwise new material would need to be brought in to fill the structure or void.

GRR

Management of radioactive waste from decommissioning of nuclear sites: Guidance on Requirements for Release from Radioactive Substances Regulation, SEPA, EA, NRW.

In-situ disposal

To leave existing structures in place. This option might be considered in situations where the risk to workers or to the environment might be greater if the structure were to be removed.

Glossary of terms

Low level radioactive waste

This waste includes metal, soil, building rubble and organic materials, arising principally as lightly contaminated miscellaneous scrap. Wastes other than those suitable for disposal with ordinary refuse, but not exceeding 4 GBq/te (gigabecquerels) of alpha or 12 GBq/te of beta/gamma activity.

Nuclear Site Licence

The nuclear site licence granted by ONR is a legal document, issued for the full life cycle of the facility. It contains site-specific information, such as the licensee's address and the location of the site, and defines the number and type of installations permitted.

On-site disposal

Decommissioning activities which encompass final disposal of the nuclear facilities or portions thereof within the nuclear site boundary.

Site End State

The state and condition to which the site of a designated nuclear power station or facility must be restored in order for the NDA to have fully satisfied its decommissioning responsibilities under the Energy Act 2004.

Site Licence Company

They are the regulated entity and the statutory liability holder. It operates and manages the site in a manner that is compliant with the Licence conditions and the conditions of the environmental Permit(s).

Very low level radioactive waste

A sub-category of LLW with specific activity limits. Sites that produce VLLW can dispose of the waste with regular household or industrial waste at permitted landfill facilities. The major components of VLLW from nuclear sites are building rubble, soil and steel items.

Q&A Section

The below section captures a number of questions which have been raised during the consultation period to date.

- What timeframes is the guidance working towards? When will this guidance document be adopted?
- If Low Level Waste remains on site, can the site be released for reuse?
- What happens if the land is accidentally dug into?
- What sort of tonnes of waste will be disposed of?
- How deep would the waste be buried? What protection will be in place to minimise risk?
- Will the guidance provide an advice note on public engagement from the site operators?
- Will the document contain a narrative which explains what LLW and VLLW is?
- What resources will be made available to Local Authorities if the workload increases due to the increase in planning applications for in-situ disposals?
- Where will the guidance fit in the hierarchy of planning policy documents?
- What would be the status of the land following in-situ disposal?
- Will the guidance cover issues relating to environmental / ecological designations?
- What planning conditions would need to be put in place following on-site disposal?
- Will the document cover the interface between the site operators and the local authority?
- Will the document cover the interaction between A,B & C sites?
- Will the guidance cover material grounds for rejection?

Q&A Section

Questions taken from a previous NuLEAF meeting entitled “*Future Uses for Nuclear Sites following their Decommissioning and Clean-up*” presented by Jim Cochrane of SEPA.

- Do planning Authorities local strategies and plans acknowledge the potential for residual radioactive contamination remaining on nuclear sites and the possibility of on-site disposals of radioactive waste?
- Is formal planning permission necessary for on-site disposal of radioactive waste on nuclear sites; particularly in cases where the radioactive waste is disposed either to fill voids on the site or to landscape the site?
- Where ‘permitted development’ has been granted, to what extent can radioactive waste be disposed of on-site?
- When would specific planning permission for the disposal of radioactive waste be required?
- What are the potential barriers to such planning permission being granted?
- How could such barriers be overcome?
- Do you think the T&CPA is the right control regime for managing any residual controls needed to protect people and the environment after the environment agencies have surrendered the RS permit?
- What arrangements do Planning Authorities think are needed for the environment agencies to transfer “knowledge” about the former use of the nuclear site and any residual radioactive contamination or waste
- Do planning authorities consider that former nuclear sites require any specific planning conditions simply by virtue of their previous use?
- What planning conditions do Planning Authorities think are needed at a former nuclear site?