

**NRS**  
Nuclear Restoration  
Services

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**Issue 1**

## **Site Restoration Programme**

### **Trawsfynydd Deposit for Recovery Permit Application**

### **Non-Technical Summary**

**March 2025**

## Trawsfynydd Deposit for Recovery Permit Application – Non-Technical Summary

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### Distribution

Nuclear Restoration Services

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## 1.0 Introduction

Nuclear Restoration Services Ltd (NRS) is preparing an application for an Environmental Permit for Deposit for Recovery of wastes generated from the Reactor Building Height Reduction (RBHR) project. The project will commence in 2025 and take an estimated 3.5 years to complete, during which time the two reactor buildings will be reduced in height from 55m down to 32.5m. The nuclear power station commenced decommissioning in 1995 and this work will continue in stages over several decades.

The recovery activity will receive crushed and screened inert wastes (mainly concrete) to extend and improve an existing laydown area (the site) in the northern part of the Trawsfynydd Nuclear Power Station Complex in North Wales. The extended laydown area will be used in the next phase of decommissioning – reactor dismantling.

Natural Resources Wales (NRW) require the submission of a Non-Technical Summary (NTS) which includes an explanation of what permit is being applied for, a summary of the regulated facility, and a summary of the key technical standards and control measures. This report comprises the NTS for the application.

In addition to this NTS, the Environmental Permit application includes the following documents:

- Online application form
- Drawings
- Environmental Risk Assessment (ERA)
- Environmental Setting and Site Design including Hydrogeological Risk Assessment and Conceptual Site Model (ESSD)
- Environmental Management System (EMS)
- Dust Management Plan (DMP)
- Updated Waste Recovery Plan (WRP).

Whilst noise impacts have been considered in the ERA, a separate noise impact assessment has not been submitted with the application as we consider that the risk of impact is low due to the distance to the nearest sensitive receptor and the working hours are restricted to daytime weekdays only.

### 1.1 Site Location and Setting

The laydown area (the site) extends to 12,260m<sup>2</sup>. This includes a level plateau and embankments, which lie to the northern end of a Nuclear Licensed Site (NLS). The NLS consists of a former power station complex which includes two reactors and ancillary buildings that are currently undergoing decommissioning. The extent of the permit boundary for the site is outlined in green, and the NLS is outlined in blue on location plan Appendix A1.

The NLS covers 15.5-hectare (ha) within Eryri National Park and the Meirionnydd area of Gwynedd, North Wales, LL41 4DT. The site is located 1.5km southwest of the small village of Gellilydan and approx. 3km northwest of the village of Trawsfynydd. It is centred on Grid Reference SH 690 382 and is accessed via the A470 trunk road which lies approx. 400m to the east and forms the main route between Dolgellau to the south and Ffestiniog to the north. The site is accessed via internal metalled roads within the NLS power station complex.

To the north of the site is the NLS boundary, and beyond this lies a small band of woodland and grassland used for grazing. To the east is a small band of woodland which separates the application area from the site sewage treatment works and the NLS boundary, beyond which lies the Scottish Power and National Grid substation compound. To the south is the main power station complex (reactors, ponds, storage facilities, and ancillary equipment/buildings) and beyond this lies Llyn Trawsfynydd. To the west is the NLS boundary and beyond is a narrow band of woodland, where there is a public footpath and beyond this are the lower slopes of Craig Gyfynys.

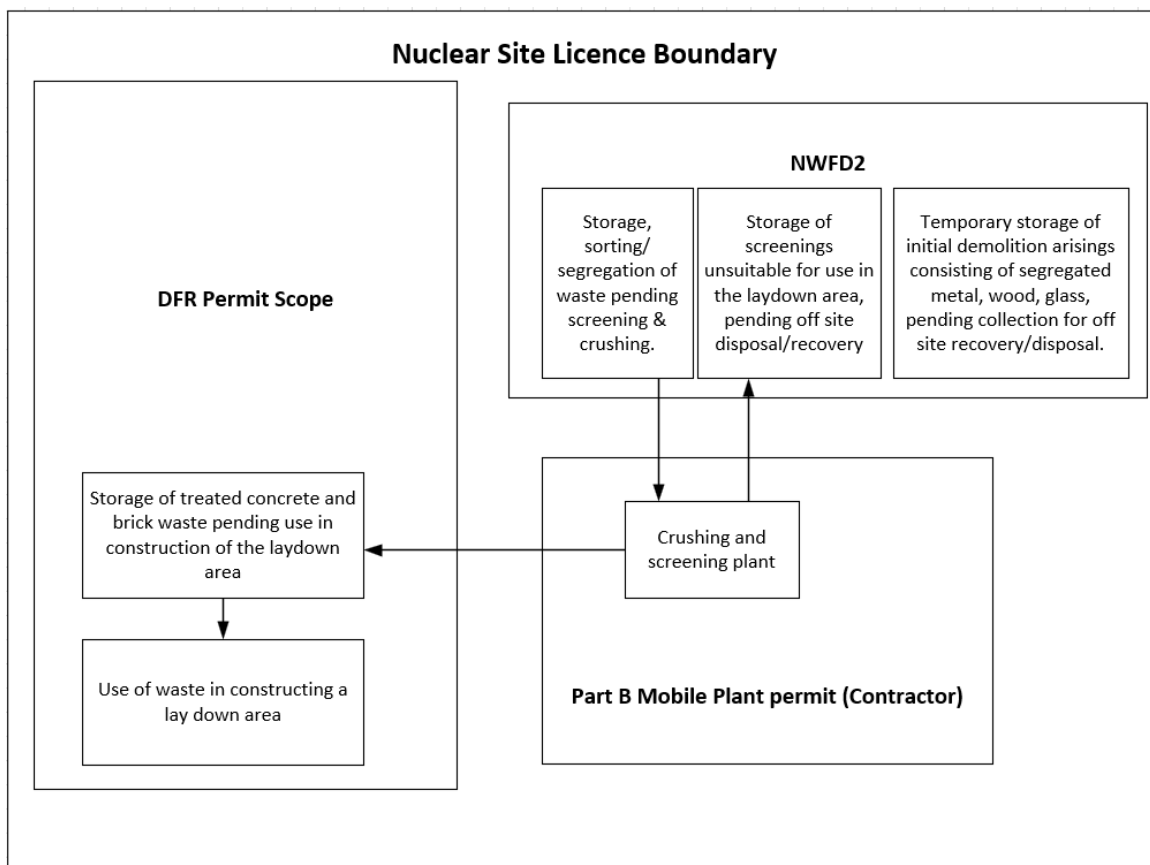
There are four European designated sites of ecological importance within 2km of the site, in addition to several buildings/monuments of heritage and cultural significance within 1km of the site. The area surrounding the site is sparsely populated, with the nearest residential dwelling 500m to the northeast. Llyn Trawsfynydd to the south of the site, is used for a range of outdoor pursuits including walking, cycling, canoeing and fishing. The Environmental Setting is illustrated in Appendix A2.

## 1.2 Pre-application Advice

Three pre-application meetings were held with NRW prior to submitting the application. Enhanced pre-application advice was received on 20 December 2024 and is enclosed in Appendix A3.

The pre-application advice recommended that a dust and emissions management plan would be appropriate, given the type of activity and the proximity of sensitive receptors.

The discussions confirmed the scope of the permitted activity is limited to storage of wastes pending recovery, and subsequent use of waste in extending and improving the laydown area. The associated waste treatment (crushing and screening) and storage activities are covered by Part B Mobile Plant Permit and NWFD2 exemption. **Figure 1** shows the relationship between the activities.



**Figure 1 Regulatory controls for all waste activities (DfR and associated activities)**

### 1.3 Application Fees

The base fee for a bespoke waste operation is £10,011 and additional charges are then included to pay for additional plans to be assessed (see Table G3c of the scheme<sup>1</sup>).

This includes:

- Site of Special Scientific Interest (as the site is within 2km of a SSSI)
- Updated Waste Recovery Plan
- Dust and Emissions Management Plan.

Deposit for Recovery permit applications are also subject to time and material costs for the assessment of additional site-specific management plans / assessments, such as the Environmental Setting and Site Design (ESSD). These will be invoiced separately based on the time spent assessing these plans (see paragraphs D1 and D3 of the charging scheme).

<sup>1</sup> [charging scheme](#)

Item	Charge
New bespoke (base charge)	£10,011
SSSI	£306
Waste recovery plan	£1,734
Dust & emissions management plan	£861
Other deposit for recovery assessments (e.g. ESSD)	£125/hr (invoiced separately)
<b>Total</b>	<b>£12,912 plus time &amp; materials at £125/hr</b>

## 2.0 Proposed Development

The site will be used for a bespoke Deposit for Recovery activity using mainly crushed and screened concrete wastes from the RBHR project. An estimated 31,492 tonnes of inert waste will be required to extend and improve the laydown area. Crushing and screening will take place under a part B mobile plant permit, as part of several discrete campaigns during the two-three year demolition period.

The material used in the lay down area will be out of scope (ie NOT radioactively contaminated)<sup>2</sup>.

Unprocessed demolition waste will be stockpiled in the vicinity of processing area and within the confines of the scheme boundary. This storage will comply with the requirements of a NWFD 2 waste exemption, which allows for storage at the place of production for no longer than 12 months pending recovery or disposal. Once processed, the recycled aggregate (6F2 or equivalent) will be placed in lifts of 100-125mm and then compacted to create the extended and improved laydown area.

### 2.1 Specified Waste Management Activities

The application is for a Deposit for Recovery waste operation. The waste management activities that will be carried out at the site, under the conditions of the permit, as specified in Annex I of the Waste Framework Directive are:

- R5: Recycling / reclamation of inorganic compounds.
- R13: Storage of waste pending any of the operations numbered R5 and R10.

<sup>2</sup> Environmental Permitting (England and Wales) Regulations 2016 (EPR16) defines a framework for assessing whether a radioactive substance needs regulatory control by the environment agencies. Substances are termed 'Out of Scope' (OoS) when they do not need to be considered radioactive by the relevant environment agency in England and Wales

## 3.0 Key Technical Standards and Control Measures

### 3.1 Technical Standards

Key technical standards laid out in the following documents will govern the operation of the site:

- The Environmental Permitting (England and Wales) Regulations 2016
- Risk Assessments for your environmental permit (gov.uk), updated 3 January 2025
- Risk Assessments for specific activities: environmental permits (gov.uk), updated 21 November 2023
- Natural Resources Wales - Carry out a risk assessment for a bespoke permit to deposit waste for recovery, updated 28 December 2022
- Natural Resources Wales – How to develop an environmental management system for your environmental permit, updated 21 June 2023.
- Develop and management system: environmental permits (gov.uk), updated 21 April 2023

The key technical standards and control measures that are necessary to ensure that the site does not give rise to significant environmental impact have been determined through the risk assessment process and are summarised below:

- Implementation of strict waste acceptance procedures
- wastes will be screened and crushed to achieve 6F2 or equivalent specification, a free-draining laydown area will reduce the potential for a high pH (alkaline) run-off to be generated following rainwater infiltration within the scheme boundary
- wastes will be carefully stockpiled prior to processing to enable free air circulation and carbonation to occur, thereby further minimising the risk of generating high pH run-off when in contact with water
- noise impacts will be minimised by speed limits, maintenance of road surfaces, selection and maintenance of plant to minimise noise and daily auditory inspections
- operations will only be undertaken during the hours authorised by the planning consent
- fugitive emissions and dust will be minimised through adherence to the site specific Dust Management Plan. This includes monitoring weather forecasts, planning operational activities and where appropriate, damping down to minimise dust emissions
- Operational monitoring and visual inspections will be carried out around the site boundary each day to ensure that the local sensitive receptors are not impacted by the waste activities on site.

### 3.2 Management System & Operating Techniques

The site will be managed and operated in accordance with NRS' Environmental Management System (EMS) which forms part of a comprehensive and robust Company Management system which has third party accredited certification to ISO 14001:2015. NRS' management system will ensure that:

- the risks that the activities pose to the environment are identified
- the measures that are required to minimise the risks are identified
- the activities are managed in accordance with the management system



- performance against the management system is audited at regular intervals
- the environmental permit is complied with.

A summary of the management system and operating techniques is enclosed in the EMS section of this application. The EMS, including the Dust Management Plan and Waste Recovery Plan, describe the appropriate measures for the control of emissions that will be in place during operation of the site.

### 3.3 Waste Acceptance

The site will only accept inert waste. This will be a single source arising from the Reactor building Height Reduction (RBHR) project taking place within the Nuclear Site Licence Boundary. A full list of the proposed waste types for recovery (including the List of Waste Codes) can be found in section 3.1 of the Waste Recovery Plan and in section 2.2 of the ESSD.

Strict waste acceptance procedures will be in place at the site to ensure that non inert waste is not accepted at the site. These procedures include the following:

- Pre-acceptance checks at source, including waste characterisation data provided by the RBHR project
- Waste acceptance checks upon delivery to the deposit and stockpiling area to ensure that the wastes are as described, and as permitted within the Environmental Permit
- Actions to be taken if waste not permitted by the Environmental Permit is delivered to the laydown or stockpiling areas.

### 3.4 Environmental Risk Assessment

An Environmental Risk Assessment (ERA) has been undertaken to assess the potential impacts from the proposed operations. The following impacts have been identified as relevant to the operations and are included in the risk assessment:

- Odour
- Noise & Vibration
- Fugitive emissions and dust
- Accidents

The Environmental Risk Assessment has been undertaken in accordance with NRW's guidance. The ERA lists the potential receptors that may be affected by the operations, details the source – pathway – receptor linkages and summarises the measures in place to mitigate risks.

The ERA concludes that with the implementation of risk management measures potential impacts from the proposed development are likely to be low. The ERA document is enclosed as part of this Environmental Permit (EP) application. In addition to the ERA, a site-specific Dust Management Plan (DMP) has been completed as required by the criteria listed under the guidance on gov.uk 'Emissions management plan for dust'. The DMP is enclosed as part of this EP application.

## 4.0 Conclusion

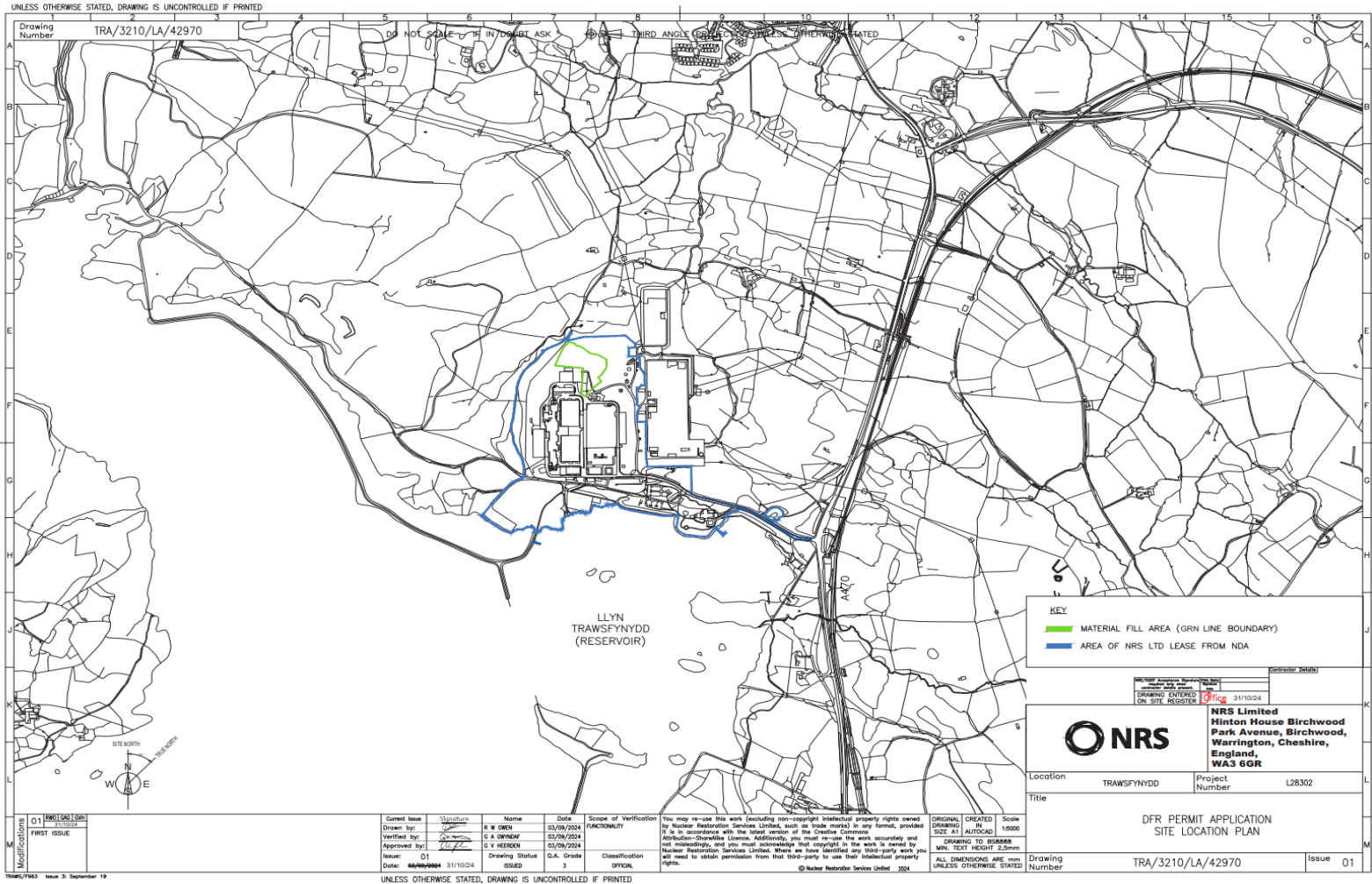
The overall conclusion from the studies undertaken as part of the application is that risks to the environmental and local sensitive receptors from the waste operations within this application will be low because of the nature and scale of the activities and the range of mitigation measures that will be in place.

NRS is fully committed to ensuring the highest operational standards. We will undertake activities set out in the EP in a manner consistent with best industrial practices, in accordance with the company's environmental policy and management system and using suitably trained and competent staff.

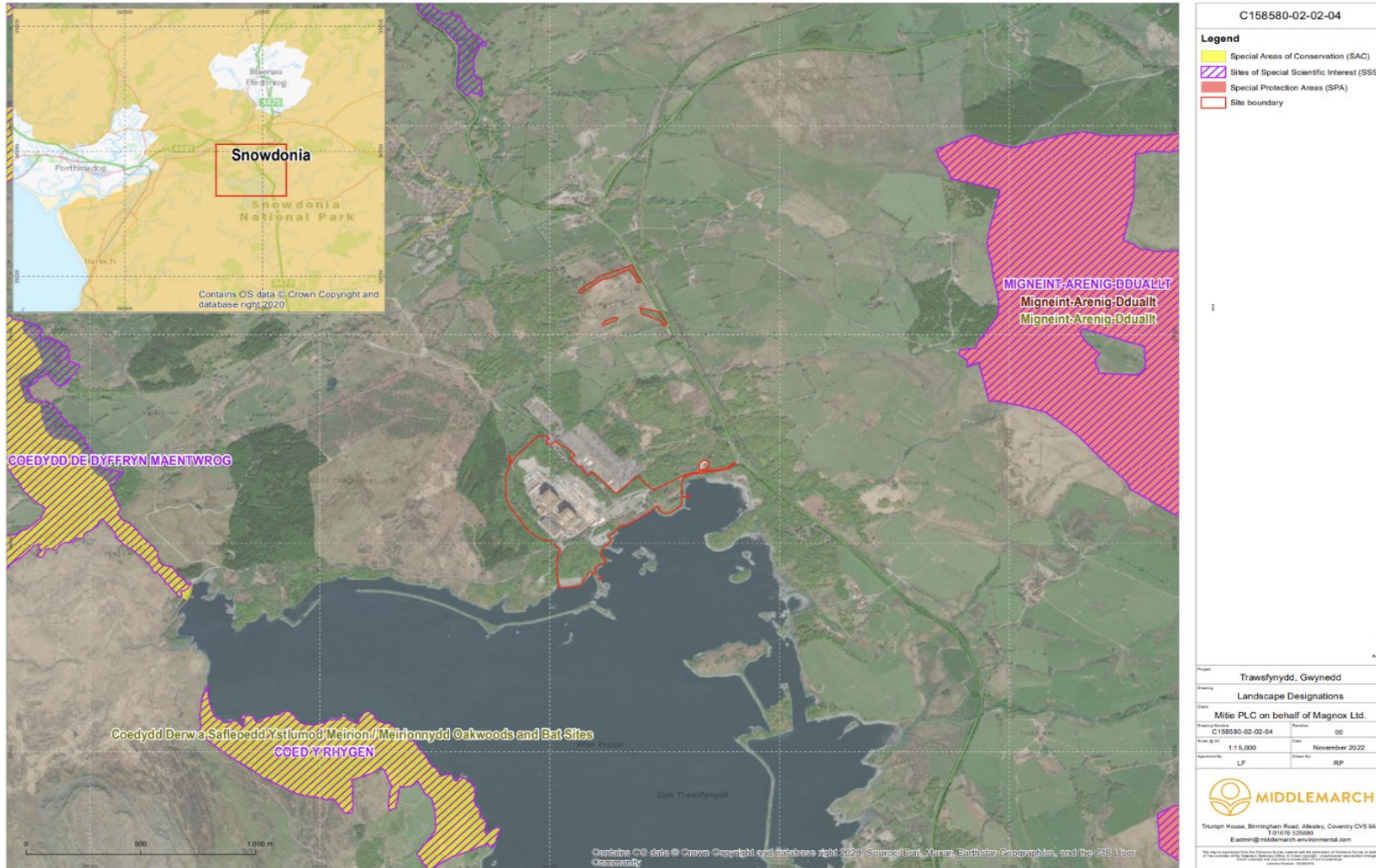
It is therefore considered appropriate that a bespoke Environmental Permit should be issued for the above Deposit for Recovery activity.

Appendices

Appendix A1 – Location of the site (permit boundary in green)



## Appendix A2 – Environmental Setting



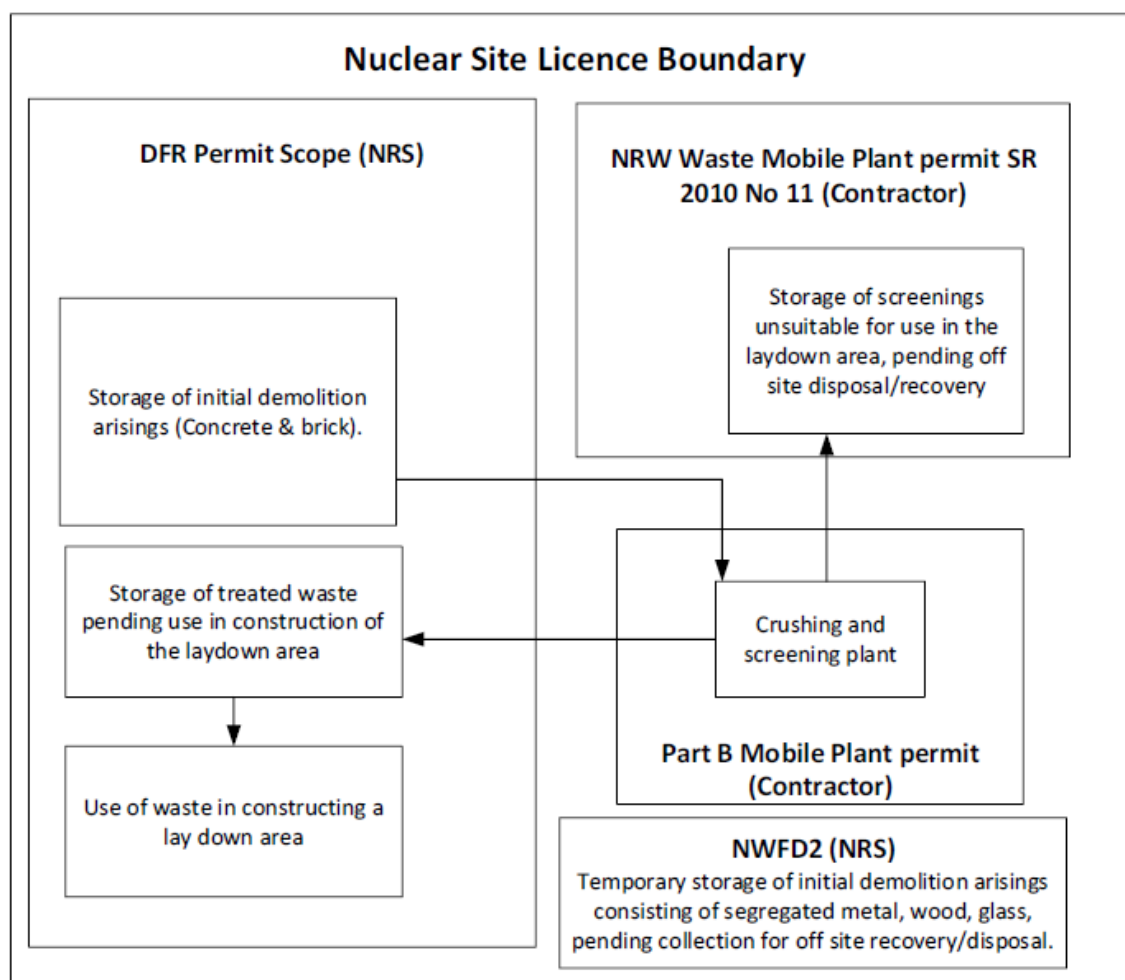


## Appendix A3 – Enhanced pre-application advice from NRW (20 December 2024)

### Trawsfynydd pre-application advice - Waste Operations

You provided the below diagram to outline the waste permitting proposals:

**Figure 1 – Waste activities and proposed permit arrangements**



Having reviewed this and follow up information provided from our discussions, we agree that provided a Part B permit is in place for the crushing and screening of the demolition waste, you do not need a permit from NRW for that activity.

Additionally, it is our view that the Non-Waste Framework Directive exemption 2 (NWFD2) would apply to the storage of the screenings not being used for the deposit, provided the waste is being stored at the place of production before being collected for disposal or recovery elsewhere.

If the waste is being kept in the confines of the scheme and vicinity of the treatment (under Part B) then we would say it is at original “place of production”. It would not apply if the Part B operator is potentially moving this waste outside the scheme boundary or an area not under the scheme. You must be able to meet the conditions set out [Waste exemption: NWFD 2 temporary storage at the place of production - GOV.UK](#)

If the scheme operator wishes to opt for a permit for other reasons, that is their choice. This does not mean NWFD does not apply.

However, if you or a contractor operating on your behalf were to apply for a permit for the storage of the screenings, we do not agree that SR2010 No11 Mobile plant for the treatment of waste to produce soil, soil substitutes and aggregate would be suitable based on the activities proposed. This permit does not allow for storage, other than for the waste being treated under that permit. So, it could only be used if also carrying out the treatment under the same permit (and deployment where applicable).

Alternatively, storage can also be covered by the DfR permit provided that the NRS is in control of the activity or under a separate bespoke permit.

If applying to NRW for a mobile plant permit and deployment, you should be aware that we would require further information to demonstrate the mobile nature of the activity. Mobile plant activities should be temporary in nature, and we would generally consider this to be no more than 12 months. If the activity extends beyond 12 months, then we would need to consider whether it should be a site-based permit. We would advise you to refer to [RGN2 Understanding the meaning of regulated facility, Appendix 4](#) for further information.

### **Conceptual Site Model**

Relevant guidance, see sections on CSM:

[Landfill operators: environmental permits - Plan the environmental setting of your site - Guidance - GOV.UK \(www.gov.uk\)](#)

[Landfill operators: environmental permits - What to include in your environmental setting and site design report - Guidance - GOV.UK \(www.gov.uk\)](#)

### **Risk assessments**

Relevant guidance:

[Natural Resources Wales / Carry out a risk assessment for a bespoke permit to deposit waste for recovery](#)

[Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](#)

[Natural Resources Wales / Find protected areas of land and sea](#)

Find mapping data:

Protected sites, ancient woodland, aquifers / groundwater vulnerability and SPZ - [Natural Resources Wales / Browse map of data about the natural environment](#)

Priority habitats - [Home | DataMapWales \(gov.wales\)](#)

Protected species - [Explore Your Area | NBN Atlas Wales](#)

### **Hydrogeological Risk Assessment (HRA)**

At this stage we cannot provide a definitive answer as to whether a tier 1 HRA is sufficient. We would, however, stress the need to do the following:

- thoroughly conceptualise your site, making use of site investigations and monitoring, including providing further information on the historic landfill in the area of the proposed deposit;
- fully characterise the wastes to be deposited, as required by waste acceptance measures (see below) [Natural Resources Wales / Prepare a management system for a deposit of waste for recovery activity](#)

Relevant guidance:

[Landfill operators: environmental permits - What to include in your hydrogeological risk assessment - Guidance - GOV.UK \(www.gov.uk\)](#)

### **Noise Impact Assessment (NIA)**

Based on the distance to the nearest residential property, which is approx. 500m north-east, a NIA is not likely to be required unless operating at night. Operating hours are understood to be 7am until 6pm, no night time operations.

Relevant guidance:

[Risk assessments for your environmental permit - GOV.UK](#)

[Noise and vibration management: environmental permits - GOV.UK](#)

### **Environmental Setting & Site Design (ESSD)**

Refer to the following guidance when writing your ESSD report:

[Landfill operators: environmental permits - Plan the environmental setting of your site - Guidance - GOV.UK \(www.gov.uk\)](#)

[Landfill operators: environmental permits - What to include in your environmental setting and site design report - Guidance - GOV.UK](#)

### **Site Condition Report (SCR)**

You must complete a site condition report for any area of the site that is not subject to deposit of waste for recovery. See the requirements for site condition reports.

You must identify:

- the environmental setting and pollution history of the site;
- any possible sources of historical contamination;
- substances in, on or under the land, from materials currently used or produced by the activities under the permit that may be a pollution risk;

- relevant plans for the site

Relevant guidance:

<https://naturalresources.wales/media/1215/environmental-permitting-regulations-guidance-for-applicants-h5-site-condition-report-guidance-and-template.pdf>

<https://naturalresources.wales/media/1213/site-condition-report-template.pdf>

### **Environmental Management System (EMS)**

You must provide a summary EMS, this is enough information for us to know that your full EMS covers the requirements of [How to comply with your environmental permit](#)

You will need to provide specific management plans and procedures for key issues, including:

#### **Waste Acceptance**

Your waste acceptance procedures must set out your waste acceptance criteria, and how waste to be deposited will be characterised.

Relevant guidance:

[Natural Resources Wales / Prepare a management system for a deposit of waste for recovery activity](#)

### **Dust & Emissions Management Plan (DEMP)**

Given the activities planned, including storing of aggregates or similar materials, and recovery of waste by deposit for recovery, the distance to sensitive receptors, we would anticipate that a Dust & Emissions Management Plan would be required.

Relevant guidance:

[Control and monitor emissions for your environmental permit - GOV.UK \(www.gov.uk\)](#)