Nuclear Restoration Services (NRS)

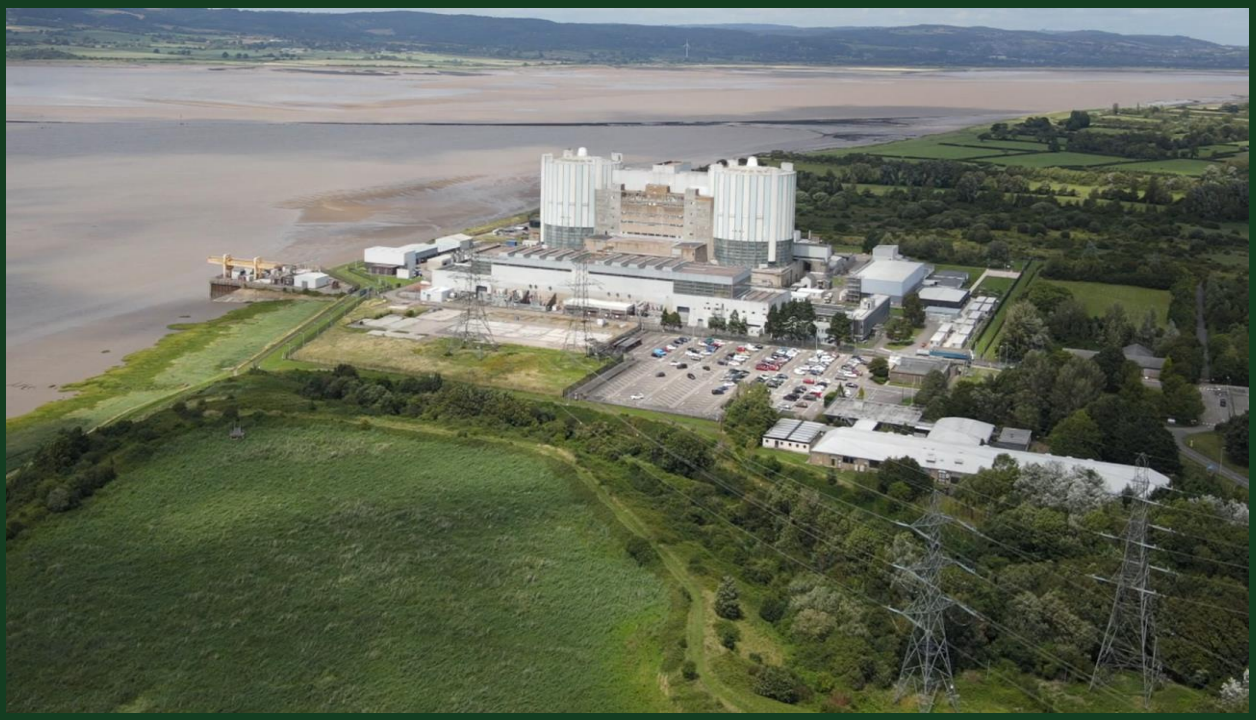
Oldbury Site

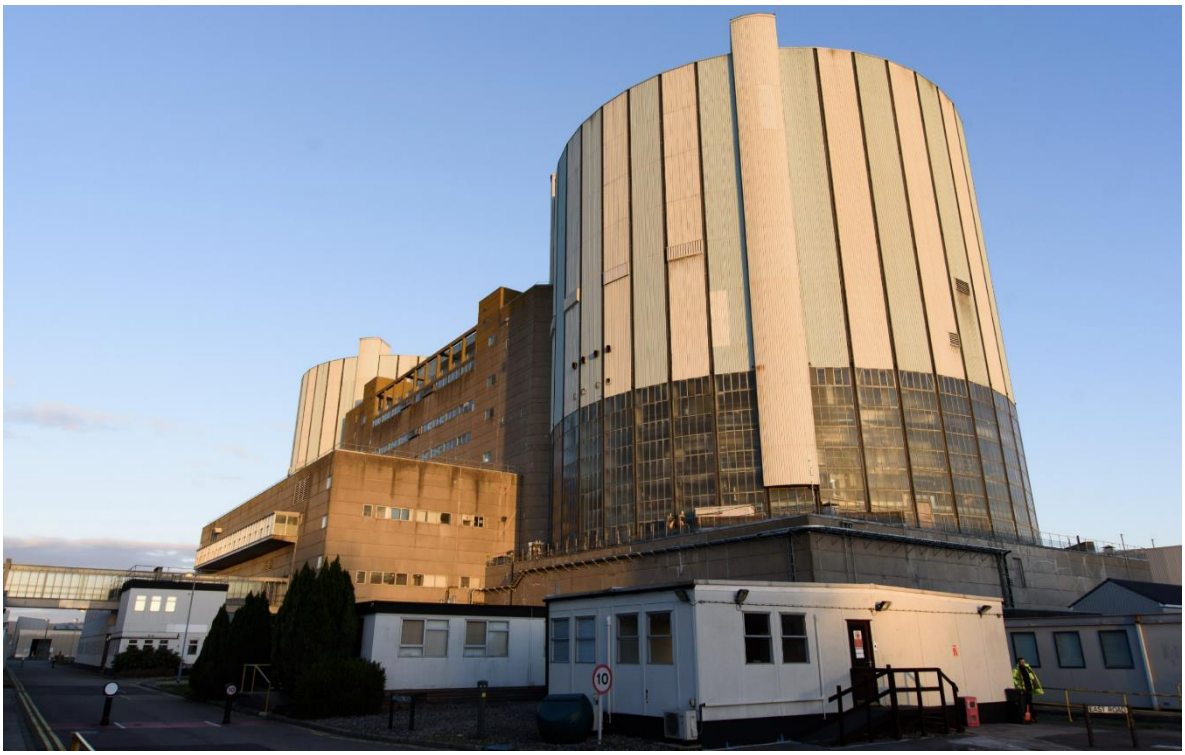
Environmental Management Plan (Decommissioning)

2026

Issue 19

Reference Number OBA 51099N





Executive Summary

In March 2007, Magnox Electric Ltd (now Nuclear Restoration Services) applied to the Health and Safety Executive (HSE) for consent to decommission Oldbury Power Station in accordance with the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended). An Environmental Statement accompanied the application.

After a period of public consultation, the HSE, now the Office for Nuclear Regulation (ONR), duly granted consent in February 2008. Conditions were attached to the consent, including one relating to the production and maintenance of an Environmental Management Plan covering the ongoing mitigation measures to prevent, reduce and, if possible, offset any significant adverse environmental effects of the decommissioning work.

The Plan is to be re-issued by the Site Licensee annually or at intervals agreed with the ONR. This document is the nineteenth issue of Oldbury Site's Environmental Management Plan.

As Site Director for Oldbury Site, I look forward to continuing a successful decommissioning project and on behalf of Nuclear Restoration Services I give my commitment to minimising any adverse effect on the environment as a consequence of our decommissioning operations.

p.p. John Alderton

Site Director

Oldbury Site

22 April 2026

OBA 51099N

Contents

Tables

1 Introduction

Oldbury Power Station (hereafter Oldbury Site) ceased generation of electricity on 29th February 2012 and shortly thereafter began defueling. Prior to commencing decommissioning work Nuclear Restoration Services (hereafter NRS), the Licensee of the site, was legally required to seek consent from the Health and Safety Executive (HSE), to carry out the decommissioning project.

An application was therefore made to the HSE for consent in March 2007. In support of this application an Environmental Statement was provided, which assessed the impacts of the project on the environment.

Following an extensive public consultation, the HSE granted consent to carry out the decommissioning project at Oldbury Site in February 2008, subject to certain conditions. The conditions are listed in full within the Consent in Appendix A.

Condition 2 of the consent requires the Licensee to prepare and submit an Environmental Management Plan (EMP) annually to the regulatory authority. Although the original consent documents refer to HSE, regulatory responsibility for EIADR transferred to the Office for Nuclear Regulation (ONR) in 2014[1].

1.1 NRS Decommissioning Strategy Review

NRS decommissioning strategies are currently being reviewed and updated. However, these have not been finalised and therefore this EMP follows the previous strategy.

It is recognised that the current EIADR project description may not yet reflect alternative decommissioning strategies such as on-site disposal and rolling programme of decommissioning. These will be assessed in line with internal standards and incorporated into the NRS EIADR process.

This will be addressed in future issues of the EMP as and when appropriate.

1.2 Site Description

Commissioned in 1967, the twin reactors and associated turbo-generators of Oldbury Site had a capacity of up to 460 megawatts (electrical) [MW (e)]. Since fuel-free verification in 2016 the focus for the site has been decommissioning.

The reactor building comprises two reactors of the gas-cooled magnox type[2]. Each reactor is enclosed in a pre-stressed, post tensioned, concrete pressure vessel lined with mild steel. Oldbury Site was the first nuclear power station in the UK to have such a pre-stressed concrete pressure vessel. Also contained within each pressure vessel is graphite, control equipment (including control rods and associated mechanisms), and a range of monitoring equipment (e.g. to monitor temperature and pressures).

The reactors were cooled using carbon dioxide. Each reactor has four boilers which were used for heat removal and steam production which in turn drove the turbines located inside the turbine hall. Cooling of the steam to return it to water was provided by water from the River Severn which had been passed through condensing units located on the floor of the turbine hall beneath the turbines. The cooling water intake and outfall structures are located offshore and are connected to the turbine hall by large underground culverts.

Other buildings and plant associated with operation of the site include the cooling water pump house, the National Grid substation (now removed), workshops, stores and offices.

[1] ONR was previously part of HSE and now acts as the independent nuclear regulator, including for EIADR.

[2] The term 'magnox' refers to the first generation of gas-cooled nuclear reactors used for electricity generation. It is derived from the cladding material (magnesium non-oxidising alloy) that surrounded each individual uranium metal fuel element.

1.2.1 Sensitivity of Receiving Environment

The nearest settlements to Oldbury Site are the villages of Shepperdine, about ½ mile to the northeast, Oldbury-on-Severn and Oldbury Naite both approximately ¾ mile to the south and southeast respectively, and the towns of Thornbury, 3 miles to the southeast and Chepstow 5 miles to the west. The city of Bristol is located approximately 6 miles to the south of the site.

The area around the site is adjacent to the River Severn and contains an intertidal zone of mudflats, sandbanks, rocky platforms, saltmarsh and grazing marsh. The estuary forms one of the most important inter-tidal zones in Britain, providing internationally important feeding grounds for over-wintering and migratory waders and wildfowl. The estuary also attracts large populations of important migratory fish species. The area is of international, national, and local conservation importance with the following conservation designations:

- Severn Estuary Site of Special Scientific Interest (SSSI);
- Severn Estuary Wetland of International Importance under the Ramsar Convention;
- Severn Estuary Special Protection Area (SPA); and
- Severn Estuary Special Area of Conservation (SAC).

There are no Scheduled Ancient Monuments on the power station site. The nearest is Oldbury Camp, an iron-age fort at Oldbury-on-Severn approximately 1.5 km to the south of the site. There are also no Listed Buildings on the Oldbury Site. However there are a number of Grade II Listed Buildings within the village of Oldbury-on-Severn. There are no parks or gardens of historic interest on or adjacent to the site. There are no registered historic battlefields on or adjacent to the power station, the nearest is at Whitcliff Park approximately 5 km to the northeast of the site.

1.3 Scope Of The Environmental Management Plan

This EMP details the mitigation measures to prevent, reduce and, where possible, offset any significant adverse effects on the environment throughout the decommissioning of Oldbury Site. It also includes measures that, although not associated with significant adverse effects, are nevertheless proposed.

The decommissioning programme is divided into three phases as follows:

- Care & Maintenance Preparations
- Care & Maintenance
- Final Site Clearance

1.3.1 Duration

This EMP is written around the three phases listed above. This is predominantly because mitigation measures may change in the future in light of experience and developing technologies. Where mitigation measures are still to be identified, developed in more detail, or require changes, these will be described in subsequent issues of the EMP together with the reasons for any changes made. Any changes will be subject to the Consent and associated Conditions issued by the HSE (now ONR) (See Appendix A).

Care & Maintenance Preparations

The first phase of decommissioning is expected to take approximately 25 years. During this phase most of the radioactive and non-radioactive plant and buildings on the site (other than the reactor building) will be dismantled and cleared.

Care & Maintenance

The second phase of decommissioning which could potentially last for some decades, during which no significant dismantling will be carried out. The site will continue to be managed, monitored and maintained.

Final Site Clearance

The last phase and is expected to take about 8 years. This involves the dismantling of the remaining structures on the site, including the reactor building and the clearance of any residual radioactivity to the applicable standard.

2 EMP Process

It is a requirement of the conditions attached to the Consent (See Appendix A), to implement the mitigation measures and describe their effectiveness.

This section describes the process for implementing and measuring the effectiveness of the mitigation measures.

2.1 Process For Implementation Of Mitigation Measures

There are a number of processes at Oldbury Site which ensure that the identified mitigation measures are implemented when required. All decommissioning projects and modifications to plant are assessed during the project proposal stage in accordance with robust company management control procedures. A Decommissioning Proposal Approval Form (DPAF) is used to assess whether there may be any changes to the baseline and determine whether further environmental assessment and mitigation is required. An Environmental Risk Assessment process has been implemented and is applied to work on site where there is a potential for a significant environmental impact. The Environmental Risk Assessment ensures that appropriate mitigation measures are implemented. This risk assessment is subject to approval and sign off by the Site Environmental Suitably Qualified and Experienced Person (ESQEP).

In addition, there are a number of other tools to ensure that all environmental impacts are minimised. The site ensures compliance with BS EN ISO 14001:2015 by following the Company Procedure for environmental management which is itself embedded into the Integrated Management System (IMS) for NRS.

Oldbury Site also undertakes Best Available Techniques (BAT) studies for those projects where it is deemed that there is a potential for significant radioactive and discharges and disposals from the site. BATs are also used where it is required to demonstrate that these impacts are minimised through evaluation by a clear, systematic and transparent process.

Alongside this EMP, Oldbury Site has a Biodiversity Action Plan (BAP). The BAP is a separate document which describes measures to maintain and enhance the biodiversity of the site in accordance with the local and national BAPs (LBAP and UKBAP). Oldbury's BAP aims to complement those mitigation measures as described in the Environmental Statement and EMP. The latest BAP (issue 9) covered 2023-2024 and was issued in February 2023. A new BAP is currently being drafted which will cover 2026-2030 and follows a new process. Information on this and previous BAPs can be obtained from Oldbury Site Environment Team.

Oldbury Site also has an Environmental Enhancement Plan (EEP: OLD-EN-F034) which describes environmental improvements to be made throughout the financial year. Some improvements list on the EEP include the implementation of mitigations measured listed in the Environmental Statement and EMP.

For works that may impact land quality, NRS uses a form titled Assessment of Land Quality Aspects of Proposals for Work on Site (F-158). This provides advice for works that have the potential to disturb suspected contamination, ensuring that details in the Environmental Statement and EMP are implemented.

2.2 Process For Determining Effectiveness Of Mitigation Measures

The site aims to continually monitor the effectiveness of the specified mitigation measures over time, and where necessary review, in order to ensure the success of reducing significant environmental impacts. Interaction between the Project and Environment Teams from the conceptual stage through to completion of the project allows for the identification and planning of any required mitigations. It also enables appropriate supervision and practical evaluation of the effectiveness of the mitigation measures implemented. Evaluations can provide valuable feedback on any difficulties encountered; changes required or highlight further mitigation requirements.

The site aims to measure the effectiveness of mitigations in numerous ways; these are outlined below.

2.2.1 Environmental Performance Monitoring

Environmental performance monitoring such as dust, noise and groundwater monitoring and ecological surveys can provide both baseline and post-mitigation assessment. Post-mitigation environmental monitoring will be used to measure the effectiveness of mitigation measures for larger projects on site such as building demolition and projects involving large numbers of HGV movements. The requirement of this method of measuring effectiveness is determined on an individual project basis as appropriate.

2.2.2 Visual Evidence

Site photographs can be taken before the start of a project to provide a good visual indication of the surrounding area and help to identify potential environmental receptors in the vicinity (e.g. surface drains) and highlight the mitigations that may be required.

Visual inspections and photographs during and after the work can also provide an indication of the effectiveness of a mitigation measure. For example, the presence of mud on roads can be an indication of insufficient wheel washing of HGVs.

2.2.3 Review of Regulatory Action, Complaints, and Internal Event Reporting

Review of regulatory actions, complaints and internal event reporting is a form of reactive monitoring which can provide valuable information about where mitigations may not be effective or where further mitigations are required. The site operates a robust system of internal event reporting, where workers report conditions which are unsafe, or potentially pose a threat to safety or the environment. These reports will be investigated and rectified. This reporting system also includes a formal process to manage any external complaints and together they could indicate effectiveness of mitigation measures. For example, complaints from members of the public on noise related activities on site can be an indication that additional silencers on equipment may be required or internal reporting on sediments entering surface water drains, may be an indication of ineffective seeding of soil stockpiles on site.

Although a ‘clean sheet’ may not necessarily mean mitigation measures are completely effective, it can indicate over a period of time that a significant environmental impact is effectively being mitigated.

3 Mitigation Measures

The following tables list the mitigation measures for each phase of the decommissioning project at Oldbury Site.[3]

Decommissioning work at Oldbury is carried out on a project basis. The mitigation measures identified in the Environmental Statement of 2007 are listed here and unless otherwise stated, these measures have been successful in managing the potential environmental impacts so far.

Examples of how mitigations measures have been implemented during decommissioning activities are listed in Section 4.

3.1 Mitigation Measures Already Identified (Condition 3a)

This section details the mitigation measures that have been identified for the lifecycle of decommissioning according to the topics that were identified in the original Environmental Statement.

3.1.1 Care & Maintenance Preparations Phase (Condition 3a)

Table 1 below outlines the possible environmental impacts during Care & Maintenance Preparations and the proposed mitigation measures to address these.

Routine control will be enforced through existing site procedures. Any additional requirements will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans. These mitigation measures will be considered as part of the environmental, health and safety justification produced as part of individual decommissioning project plans.

Table 1: Care & Maintenance Preparations Phase (Condition 3a)

Care & Maintenance Preparations Phase (3a)		
Topic	**Nature of impact**	**Mitigation Measures Proposed**
Air Quality And Dust	Dust Emissions (from on-site) Increase in site dust emissions due to construction, demolition and waste / materials handling operations etc. which could impact on residential and industrial receptors.	The following best practice measures will be implemented as appropriate: • On-site roads to be regularly cleaned of mud/dust deposits, including the use of re-circulating water wheel washers and road cleaners as appropriate; and sheeting of vehicles carrying potentially dusty loads; • Minimisation of unnecessary material and waste handling as far as practicable; • Use of water sprays for external demolition activities as appropriate; • Use of water sprays during outside infill operations; • Avoidance of vehicular use of un-surfaced (soft) ground where possible and limits on vehicle speeds on such surfaces where it cannot be avoided; • Use of water sprays during particularly windy or dry conditions; • Use of water sprays to maintain damp surfaces during dry and windy weather (e.g. soil stockpiles, demolition rubble); or sheeting or seeding of surfaces of stockpiles of soil or other dusty materials; • Sheeting or seeding of surfaces and/or use of wind fences; and • Covering of containers and/or use of wind fences.
	Dust Emissions (road side from vehicles) Increase in dust at residential properties along traffic routes due to soiled vehicles or vehicles carrying dust loads.	As appropriate: • Sheeting of lorries carrying dusty loads; and • Provision of wheel and body washing where appropriate for, as a minimum, heavy goods vehicle leaving the site.
Ecology	Badgers Loss of foraging habitat and potential loss of setts	• No works within 30 m of a badger sett without a licence from Natural England. • Provision of up to 5 m width foraging zones alongside retained hedgerows and trees around those meadows to be developed for the benefit of foraging badgers.

[3] *There are a number of references to Pollution Prevention Guidance in the Mitigation Measures. Note that Pollution Prevention Guidance has been withdrawn by the Environment Agency and is now only available through the 'National Archive' but should still be referred to for good practice guidance.*

Care & Maintenance Preparations Phase (3a)		
Topic	Nature of impact	Mitigation Measures Proposed
	Great Crested Newts/Reptiles Incidental Mortality	Under licence from Natural England, fence off and clear amphibians from areas having been identified as offering suitable foraging habitat and only as and when the areas are planned to be used for materials storage and car parking: i.e. meadows 1, 2, and 3 (see Figure OLD/EC/03 of the Environmental Statement).
	Peregrine Disturbance	Buildings to be checked for nesting peregrine prior to demolition to ensure compliance with the Wildlife and Countryside Act.
	Sea Clover Loss of habitat	Sea clover seeds to be collected in July from individual plants within development area and scattered on vegetation gaps within the foraging zones identified as mitigation for the loss of foraging habitat for badgers. Restoration of the developed areas to take place at end of Care & Maintenance Preparations phase using a similar mix of species ideally including sea clover seed, cuttings or transplants.
	Semi-Improved Grassland Loss of habitat	If used for decommissioning, meadows 1,2, and 3 (see Figure OLD/EC/03 of the Environmental Statement) to be re-sown with a species-mix matching the plant communities currently found and ideally containing sea clover seed or transplants.
	Severn Estuary SPA/SAC/SSSI/Ramsar Dust deposition on coastal saltmarsh; Loss of feeding habitat for birds during removal of tidal reservoir wall; and Disturbance of fish due to noise and vibration during removal of the tidal reservoir wall.	• Undertake removal of tidal reservoir wall at low tide only and outside of peak period when significant numbers of SPA birds may be present (December to February). • Use of water sprays for external demolition activities as appropriate.
Geology, Hydrogeology and Soils	Inadvertent or uncontrolled disturbance or spreading of existing contaminated soils, including movement by windblown dust, entrainment in runoff, attachment to vehicles and/or inappropriate soil handling operations.	• Desk studies and site investigation, if necessary, before works commence in order to determine the presence or absence of contamination, so that appropriate working practices can be adopted from the outset. • Controlled access to or from known or potentially contaminated working areas as appropriate. • Use of re-circulating wheel washers on HGVs leaving site as appropriate. • Compliance with Pollution Prevention Guidance (PPG) • e.g. PPG2, 6, 11 and 21, as appropriate. • See also dust control measures. • See also measures under 'Inadvertent contamination of soils and/or groundwater arising from temporary storage of contaminated soils, wastes or materials.'
	Mobilisation of existing contamination by direct rainwater infiltration due to changes in ground cover or the creation of open excavations.	• Investigation of contaminated soils prior to the removal of hard-standings or buildings/foundations with prior remediation if necessary. • Excavation dewatering, if necessary, with monitoring and appropriate management/disposal of any waters arising. • Tenting of exposed areas or excavations, if necessary. • Compliance with relevant PPGs including 11 and 21.
	Mobilisation of existing contamination due to changes in water table levels and consequential changes to the groundwater flow regime (e.g. due to changes in ground covering and rainwater infiltration).	• Desk studies and site investigation, if necessary, to determine groundwater levels, flows and characterise the full extent of any contamination (both in the saturated and unsaturated zones). • Dewatering of affected areas, if necessary, to avoid mobilisation of contaminants. Remediation may be required if contamination is significant. • Better constrain current baseline conditions for groundwater quality to provide suitable comparison to any future changes.
	Creation of new contaminant migration pathways (e.g. due to the creation of boreholes, piles or excavations connecting previously unconnected geological strata).	• Compliance with BS 5930 (Code of Practice for Site Investigations) and BS 10175 (Investigation of Potentially Contaminated Sites – Code of Practice). • Compliance with EA Technical Report P5-065/TR (Technical Aspects of Site Investigation). • Production of risk assessments, method statements and contingency plans. • Compliance with relevant PPG guidelines. • Production of risk assessments, method statements and contingency plans.

Care & Maintenance Preparations Phase (3a)		
Topic	Nature of impact	Mitigation Measures Proposed
		• Use of made ground that does not exceed average permeability of in situ material to cause groundwater flow issues. • Placement of flow barriers and monitoring of level and flow pattern impacts, as required.
	Inadvertent contamination of soils and/or groundwater arising from temporary storage of contaminated soils, wastes or materials.	• Sampling and testing of soils, wastes and materials prior to storage as appropriate. • Segregation as appropriate. • Use of containment (e.g. membranes) to eliminate cross- contamination, as appropriate. • Management of rainwater run-off from storage areas for contaminated or potentially contaminated soil, wastes • and materials.
	Inadvertent contamination of soils and/or groundwater arising from inappropriate use of contaminated soils, wastes or materials as infill materials.	• Sampling and testing of potentially contaminated soils, wastes and materials prior to use as appropriate. • Authorised disposal of unsuitable soils, wastes and materials.
	Inadvertent effects on groundwater flow and quality due to infill of deep basements and the breaching of basement structures to prevent ponding.	• Improved characterisation of groundwater levels and flow direction prior to the start of decommissioning. • Sampling and testing of potentially contaminated soils, wastes and materials prior to use as appropriate. • Puncture all remaining services and foundations to reduce the likelihood of ponding.
	Changes in soil and groundwater quality due to spills or leaks of non-radioactive substances.	• Bunding of chemical and fuel storage according to EA Pollution Prevention Guidance (PPG) Notes 2 and 6. • Appropriate protocols for chemicals and fuel handling in line with PPG6 and PPG11, with trained staff only to operate facilities. • Emergency spill response planning according to PPG21, including spill kits kept on site and trained staff available.
Landscape And Visual	Light spill	Any new lighting to be installed on site should be directional lighting.
	Trees	• Careful siting and use of protective fencing where necessary compliant with BS 5837:2012, Trees in Relation to Design, Demolition and Construction.
Noise And Vibration	Local residential properties, recreational areas & industrial receptors General changes to noise directly from the site and associated changes in traffic.	As appropriate: • Use of equipment fitted with effective silencers where practicable; • Appointment of a site contact to whom complaints/ queries about construction/demolition activity can be directed - any complaints to be investigated and action taken where appropriate; • Local residents informed of exceptional activities; • No potentially significant external working outside of normal working hours without prior agreement with the local authority; and • All construction activity to be undertaken in accordance with good practice as described by BS 5228:1997 Noise and Vibration Control on Construction and Open Sites. This includes minimising unnecessary revving of engines, turning off machines when not required and routine maintenance of equipment.
Socio-Economic	Direct Employment Long-term loss of jobs	• NRS will encourage its contractors to make use of local labour, equipment and services as far as practicable. • NRS will attempt to re-deploy affected staff & support staff in re-training/re-skilling for decommissioning roles.
Surface Water Quality And Drainage	The potential release of turbid and/or contaminated water from decommissioning activities on the site.	Where necessary: • Wetting down (e.g. excavation or construction/ demolition areas) to prevent windblown spread of dust into locations where subsequent washing into surface water drains would be likely, and appropriate management of wastewater arising. • On-site roads to be regularly kept free from mud/dust deposits, including the use of re-circulating water wheel washers and road cleaners as appropriate. • Sheeting or seeding of any long-term stockpiles of soil to reduce wash-off of suspended solids. • Careful design and siting of spoil mounds as necessary to manage run-off, including use of low walls around such mounds if appropriate. • See also measures under geology, hydrogeology and soils in relation to turbid and/or contaminated water entering the storm drainage system.
	Potential minor spills and leaks of non-radioactive substances.	• Careful siting of concrete plant and fuel/chemical handling facilities according to EA Pollution Prevention Guidance (PPG) Notes 5 and 6.

Care & Maintenance Preparations Phase (3a)		
Topic	Nature of impact	Mitigation Measures Proposed
		• Bunding of chemical and fuel storage according to PPG2, PPG5 and PPG6. • Oil separation facilities on the surface water drainage system at appropriate locations. • Appropriate protocols for chemicals and fuel handling in line with EA PPG6 and PPG11, with trained staff only to operate facilities. • Emergency/spill response planning according to PPG21; including spill kits kept on site and trained staff available at all times.
Traffic and Transport	Impacts on safety on roads (Foss Lane, Hill Lane, The Naite.)	• No specific mitigation is possible because of the absence of specific accident clusters and causes and/or because the routes benefit from accident records at or below the national average. However, a Travel Plan will be implemented which will encourage communal transport or car sharing (see Appendix B).
	Environmental Impacts e.g. proximity of vehicles to pedestrians, pedestrian amenity and mud on roads etc.	• No specific mitigation is possible because of the absence of specific accident clusters and causes. However, a Travel Plan will be implemented which will encourage communal transport or car sharing (see Appendix B). • Wheel washing of HGVs as necessary.

3.1.2 Care & Maintenance (Condition 3a)

Table 2 below outlines the possible environmental impacts during the Care and Maintenance Phase and the proposed mitigation measures to address these.

Table 2: Care & Maintenance Phase (Condition 3a)

Care & Maintenance (Condition 3a)	
Topic	Mitigation Measures Proposed
Geology, Hydrogeology and Soils	Several tasks carried out during Care & Maintenance Preparations may give rise to ongoing impacts for the subsequent decommissioning phase. In respect of these ongoing impacts then some or all of the impacts and mitigation measures (all of which would have been applied in the preceding phase) are as described above under Geology, Hydrogeology and Soils for the Care & Maintenance Preparations phase. The impacts and mitigation measures associated with any maintenance to be carried out during the Care & Maintenance phase would be encompassed by those discussed for Care & Maintenance Preparations.

No other significant adverse environmental impacts were identified during the Care & Maintenance Phase.

3.1.3 Final Site Clearance Phase (Condition 3a)

Most of the mitigations during this phase will be the same as those identified in the Care & Maintenance Preparations Phase: see Table 1 above.

3.2 Mitigation Measures Not Yet Selected (Condition 3b)

This section should detail the mitigation measures that have been identified for the lifecycle of decommissioning according to the topics that were identified in the original Environmental Statement, but that have not yet been selected for use in activities or projects. However, no such activities have been identified for any of the phases for this EMP.

3.3 Mitigation Measures Not Yet Identified (Condition 3c)

This section should identify work activities where mitigation measures cannot yet be defined because sufficient information is not currently available. This can either be because the site doesn't know the impacts at this time, or don't know what mitigations will be available in the future. No such activities have been identified for any of the phases.

Additional mitigation measures (or any changes required to those measures listed above) for activities during Final Site Clearance will be based on the technologies available at that time, decommissioning experience and any future environmental assessment deemed necessary.

4 Effectiveness Of Mitigations

It is a requirement of the conditions attached to the Consent (See Appendix A) to describe the effectiveness of the mitigation measures that are implemented.

This section will discuss the measures which have been implemented, how the site measures their effectiveness in reducing significant environmental impacts and describes their use in some relevant projects which have been carried out during 2025/2026.

Error! Reference source not found.3 below shows some of the mitigations put in place to support work across 2025/26. There have been no significant environmental events related to this work and the mitigations applied have been effective and proportionate to the hazards present. Where applicable, the mitigations listed in Table 1 have been applied to projects in the last year, these are outlined in Table 3.

Table 3: Review of Mitigations Applied in 2025-2026

Impact	Works Description	Environmental Mitigation	Issues? (Y/N)	Effectiveness/Comments
Air Quality and Dust	CO_2 Tanks Demolition: Wall and plinth demolition	Dust suppression (misting) used, and a bung was placed in the drain channel to prevent effluent from entering the drain.	N	This was an effective mitigation measure.
	Early FED Retrievals: Vent atmosphere from C3 contamination categorisation	All vent equipment was fitted with filters that filter out contamination from discharged air.	N	This mitigation works sufficiently and is used across a number of projects at Oldbury and the wider NRS fleet.
	OTC Demolition: Demolition activities and associated dust production	Routine control of site procedures instigated by the Principal Contractor. During all demolition activities, water was used to suppress the dust generated. Closeable skips were used where appropriate to ensure that hazardous materials (e.g. asbestos) could not be released.	N	These mitigations are best practice and an industry standard; they are proven to be effective in reducing the harm to individuals and the surrounding environment.
	OTC Demolition: Debris on the surrounding roads	A road sweeper was brought to site to clear the roads of debris.	N	The road sweeper was deployed after each skip shipment to mitigate the risk of debris being left on the roadways.
	Central Road / link bridge / district survey demolition	Dust suppression was used throughout the demolition phase via misting. The soft strip of light airborne material was carried out to reduce dust and airborne materials.	N	Successful in reducing dust and airborne material.
Carbon Footprint	Silt Lagoon 3: vegetation clearance (use of Aspen fuel)	Aspen fuel is virtually free from harmful substances like benzene and aromatic hydrocarbons. This made it a much safer option from both an environmental and health perspective.	N	Successful in reducing the project's carbon footprint.
	Pond Vent Plant Switch Off Trial: Post-decontamination trial to assess whether the Pond Vent Plant could be safely turned off and the pond naturally ventilated	Ventilation system switched off for a controlled trial period, with conditions monitored to ensure safe air quality and environmental compliance.	N	Trial demonstrated that natural ventilation is sufficient. Vent fans can be permanently turned off which is a significant reduction in the Site's carbon emissions.
	Central Road / link bridge / district survey demolition	Air conditioning equipment containing F-gas removed and decommissioned prior to demolition.	N	F-gas removed without release to the environment.

Impact	Works Description	Environmental Mitigation	Issues? (Y/N)	Effectiveness/Comments
Ecology	CO_2 Tanks Demolition: Demolition works taking place on a site adjacent to the Severn Estuary	Shadow HRA produced, demolition works completed outside of overwintering bird season to avoid noise disturbance to Severn Estuary SPA bird assemblages.	N	The demolition was completed prior to this date although did create a time pressure on the job.
	OTC Demolition: Demolition activities and associated ecology impacts	See noise section.	N	
	Silt Lagoon 3: vegetation clearance	The vegetation clearance took place outside nesting bird season. An Environmental Risk Assessment was carried out on the works area.	N	Reduced disturbance to nesting birds.
	Central Road / link bridge / district survey demolition	A Shadow Habitats Regulations Assessment was carried out on the work areas. A nesting bird inspection was carried out and entry points covered in advance of the works.	N	Reduced disturbance to nesting birds.
	Turbine Hall Enabling Works	Ongoing sealing of entry points when found, and doors/windows kept closed.	N	Mitigations have restricted wildlife entry as best as reasonably practicable.
Geology, Hydrogeology and Soils	OTC Demolition: Risk of changes in soil and groundwater quality due to spills or leaks of non-radioactive substances	Followed relevant pollution prevention guidance for hazardous liquids storage (such as COSHH) and handling (refuelling). Plant nappies were used under all machinery when not in use. Site arrangements followed for emergency spill response.	N	COSHH was stored appropriately for the entirety of the project. Plant nappies were used but were not required as no leaks occurred. This is a standard practice and is effective when required. Additional spill kits were in the area in the event of a spillage. Drains were blocked to prevent liquids entering the drainage system.
	Silt Lagoon 3: vegetation clearance	All refuelling was undertaken over plant nappies with a contingency spill kit in the refuelling area.	N	No fuel spillage encountered.
	Central Road / link bridge / district survey demolition	All refuelling was undertaken over plant nappies with a contingency spill kit in the refuelling area.	N	No fuel spillage encountered.
Noise and Vibration	CO_2 Tanks Demolition: CO_2 Tank Area – Demolition works	No work completed overnight. Cutting equipment and concrete demolition generated noise. See ecology section for ecology related mitigations.	N	
	OTC Demolition: Demolition activities and associated plant equipment	Noise suppression was put in place, including the installation of noise barriers around the demolition area.	Y	Even with noise barriers noise could be heard from outside the demolition area, therefore noise monitoring for future demolitions will be considered.
	Silt Lagoon 3: vegetation clearance	The contractor adopted low impact, manual working methods to minimise plant movements, with a main compound distant from the work site, which was assessed in the Shadow HRA.		Mitigations implemented and no issues reported.

Impact	Works Description	Environmental Mitigation	Issues? (Y/N)	Effectiveness/Comments
	Central Road / link bridge / district survey demolition	Demolition works completed outside of overwintering bird season to avoid noise disturbance to Severn Estuary SPA bird assemblages. Acoustic surveys were carried out to understand ambient background readings.	N	Mitigations implemented and no issues reported.
Socio-Economic	Silt Lagoon 3: vegetation clearance	A regional business was used to undertake the works.	N	Support for regional businesses.
	Central Road / link bridge / district survey demolition	Regional waste hauliers were used to transport materials and dispose of waste.	N	Support for regional businesses.
Surface Water Quality and Drainage	CO_2 Tanks Demolition: Use of hazardous liquids in demolition area	Generators and any associated pipework/separate fuel tank were checked for signs of leaks, damage or degradation prior to use and on a regular basis while in use. The generator and fuel cube provided contained a bund (secondary containment) capable of holding 110% of the fuel tank capacity (and any connected storage tanks). Spill kits which are made available which were adequately sized to absorb the volume of liquids in the event of a spill or leak. Storage and use of fuels and oils were minimised. All containers were labelled with the contents, volume and responsible person contact details. Drain covers or absorbent booms were available close to the workplace to protect any drains near to where the generator and hazardous liquids are sited. Refuelling of plant included the use of drip trays / plant nappies, supervision of refuelling at all times and a check for leaks pre- and post-refuelling.	N	Advice was very effective and no spills occurred.
	General Site works	Site arrangements implemented to prevent spills, but contingency measures are also available to clean up spills where they occur.	N	Spills occurred but cleaned up to mitigate environmental impact. Each spill results in a Q-Pulse being submitted and discussed at the Event Review Meeting to determine if any learning can be taken from the event.
	OTC Demolition: The potential release of dirty/contaminated effluent from demolition activities	Drains were blocked by the Principal Contractor to mitigate the risk of unauthorised effluent being discharged.	N	Effective blockage of the drains achieved the desired outcome. Oil-contaminated water was discovered in the OTC lift pit. The pit was thoroughly cleaned and cleaning arisings disposed of via an appropriately permitted route. Advice provided by Site Environment Team as well as Central Land Quality.

Impact	Works Description	Environmental Mitigation	Issues? (Y/N)	Effectiveness/Comments
	Silt Lagoon 3: vegetation clearance	Operatives were given a site induction which included mitigation of pollution prevention (see below). Spill kits provided in the area; double skinned fuel tanks were used. Equipment and associated pipework checked for leaks and damaged prior to use and whilst in use. Refuelling took place under supervision with the use of plant nappies.	N	Mitigations implemented and no issues reported.
	Central Road / link bridge / district survey demolition	Drains were covered with sandbags to prevent material entering the watercourse. Fuel cubes were bunded and spill kits located nearby, with operatives trained in spill response.	N	Mitigations implemented and no issues reported.
	Sewage Plant Malfunction: Non-drive end bearing deflecting and causing a noise, plant required to be shut down for maintenance	Effluent diverted to the Emergency Holding Tank (EHT) and tankers used to transport effluent off site. Contracted maintenance company engaged and came to site to carry out a repair. Plant put back into service, but effluent cycled through EHT until a compliant discharge was confirmed via sampling.	N	Mitigations ensured that there was not a pollution incident, discharge to the Severn Estuary only took place when effluent was compliant with permit limits. Plant put back into service and is operating within its compliance limits. Lessons Learnt took place which identified the need for a new maintenance contractor and maintenance regime.
Traffic and Transport	Silt Lagoon 3: vegetation clearance	Contractor vehicles were reduced to one at a time accessing the work area to limit the disturbance to flora and fauna.	N	Mitigations implemented and no issues reported. The pre-planning limited disturbance to the flora and fauna of the access route.
	Central Road / link bridge / district survey demolition	Demolition operatives encouraged to travel together to reduced vehicle movements.	N	Mitigations implemented and no issues reported.

5 Changes To The EMP (2025 - 2026)

The primary update to this Environmental Management Plan (EMP) relates to formatting improvements implemented as part of an internal EIADR enhancement initiative. These changes aim to streamline the EMP process and ensure consistency in the template used across all NRS sites.

As a result, some sections have been removed or amended compared to the previous version. However, there are no substantive changes to the content, as no modifications were made to the mitigation measures for the 2025–2026 period relative to 2024–2025.

In recognition of the work that takes place to reduce carbon emissions from current systems, or to reduce carbon emissions from future work (e.g. fuel use), a carbon footprint section has been added to Table 3 to better categorise carbon related mitigations.

6 Distribution Of The EMP

Any queries relating to decommissioning activities at Oldbury Site or requests for copies of this EMP should be addressed to:

The Site Director
Oldbury Site
Oldbury Naite
Thornbury
South Gloucestershire
BS35 1RQ

In addition to the submission of this EMP to the Office for Nuclear Regulation (ONR), NRS will also provide it to the Oldbury Site Stakeholder Group.

The EMP is also available through the NRS pages of the .gov website as well as on the ONR website.

Further information on the HSE's decision to grant consent to decommission Oldbury Site can be found in their decision report, which describes the content of the conditions attached to the Consent and the main reasons and considerations for the decision. Requests for copies of this document should be made directly to the ONR.

Appendix A: Decommissioning Project Consent

Decommissioning Project Consent No.1 18 February 2008

NUCLEAR REACTORS (ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING) REGULATIONS 1999

CONSENT

granted under regulation 4(b)
in accordance with regulation 8(3)
with conditions attached under regulation 8(4)

OLDBURY POWER STATION

The Health and Safety Executive, for the purposes of regulation 4(b) in accordance with regulation 8(3), grants consent for carrying out the project[1] applied for under regulation 4(a), in particular, to remove all buildings except the reactor buildings, alter the reactor buildings for a period of deferment, retrieve and package operational intermediate level waste, and store the intermediate level waste until it can be removed from site, and clear the site, subject to the conditions under regulation 8(4) attached.

Dated: 18 February 2008

Signed A. N. Hall

For and on behalf of the Health and Safety Executive
Dr A N Hall
A person authorised to act in that behalf

[1] Project as defined in regulation 2

Conditions attached to Decommissioning Project Consent No.1 18 February 2008

NUCLEAR REACTORS (ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING) REGULATIONS 1999

CONDITIONS

attached under regulation 8(4)

to Decommissioning Project Consent No. 1 granted under regulation 4(b)

OLDBURY POWER STATION

Condition 1

The project[1] shall commence before the expiration of five years from the date of this Consent.

Condition 2

(1) The licensee is required to prepare and implement an environmental management plan to cover mitigation measures to prevent, reduce and where possible offset any significant adverse effects on the environment.

(2) The project shall not be carried out except in accordance with the environmental management plan.

Condition 3

Within 90 days of the date of this Consent, with reference to the environmental statement provided under regulation 5(1) and evidence to verify information in the environmental statement, provided under regulation 10(9), the environmental management plan shall:

a. list the mitigation measures that are already identified in the environmental statement and evidence submitted to verify information in the environmental statement;

b. list the options to implement work activities where mitigation measures may be required but where selection of an option will only be possible in the future;

c. list the work activities where mitigation measures may be required but where assessments to identify mitigation measures will only be possible in the future.

Condition 4

Subsequent to condition 3, the environmental management plan shall:

[1] Project as defined in regulation 2

a. with reference to condition 3b, identify the mitigation measures for options that have been selected, giving reasons for their selection;

b. with reference to condition 3c, identify the mitigation measures from assessments carried out, giving reasons for their selection;

c. describe the effectiveness of the mitigation measures over time;

d. describe significant changes to the mitigation measures in light of experience, giving reasons for such changes.

Condition 5

The licensee is required to:

a. provide the environmental management plan to the Health and Safety Executive within 90 days of the date of this Consent and every year thereafter, or within such longer time as the Executive may agree;

b. make the environmental management plan available to the public within 30 days of the plan being sent to the Health and Safety Executive, or within such longer time as the Executive may agree; the plan may replace earlier versions.

Condition 6

The licensee is required to provide notice to the Health and Safety Executive of any significant change to a mitigation measure to prevent, reduce and where possible offset any major adverse effects on the environment no less than 30 days before the change is made, or within such shorter time as the Executive may agree.

Dated: 18 February 2008

Signed A. N. Hall

For and on behalf of the
Health and Safety Executive
Dr A N Hall
A person authorised to act in that behalf

Appendix B: Principles for a Transport Management Plan

Objective

All decommissioning operations involving transport will be managed to minimise the environmental effects of these operations, as far as is reasonably practicable. The principles for achieving this are defined below.

Transport Management Principles:

- HGVs will be required to exit the site through the Main Gate and, where appropriate, to follow preferred routes to and from the strategic road network;
- The numbers of individual transport movements will be minimised as far as is reasonably practicable;
- Employees and contractors will be encouraged to share transport (or use public transport) when travelling to and from the Oldbury Site;
- NRS and their contractors will be required to maintain their vehicles in a good standard of condition;
- When appropriate, vehicles leaving the site will be subject to wheel wash and inspection to ensure that earth and other material is not unduly dispersed;
- On site roads will be swept as necessary to minimise the spread of material off-site and/or into drains or watercourses;
- Signage will be provided at site exits to reinforce the contract requirements on vehicle drivers;
- Where practicable, transport distances will be minimised by the use of local recycling companies, disposal sites, etc.;
- Most HGV transport movements will be undertaken during normal working hours; and
- In the event of need for an abnormal load to be transported, a specific plan for this movement will be developed.

Oldbury Site

Oldbury Naite

Thornbury

South Gloucestershire

BS35 1RQ

https://www.gov.uk/government/organisations/nuclear-restoration-services

NRS
Nuclear Restoration Services

NDA