Executive Summary

In April 2002 Magnox Electric plc (now Magnox Limited) applied for consent to decommission Bradwell Nuclear Power Station under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended).

Consent was granted by the Health and Safety Executive (HSE) (now Office for Nuclear Regulation (ONR)) in December 2003. There were six conditions attached to the consent, most of which relate to the preparation and maintenance of an Environmental Management Plan.

This document is the sixteenth issue of the Bradwell Environmental Management Plan. It provides an update on the details of the agreed mitigation measures to prevent, reduce and, if possible, offset any significant adverse environmental effects of the decommissioning work. A revised version of this document will be re-issued annually, or within such longer time as agreed with the Office for Nuclear Regulation.

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

Allen Neiling, Closure Director, Bradwell

February 2019
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1. Introduction

Bradwell Site (hereafter referred to as ‘Bradwell’) ceased power generation on 31 March 2002. Under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) consent to carry out any dismantling or decommissioning work at Bradwell had to be granted before any work commenced. Therefore, in April 2002, the then holders of the Bradwell Nuclear Site Licence (Magnox Electric plc) applied to the Health and Safety Executive (HSE) (now Office for Nuclear Regulation (ONR)) for the consent to decommission Bradwell. The application was accompanied by an environmental statement as required by the Regulations.

Following a public consultation on the environmental statement, the HSE requested further information which was subsequently provided by the licensee. The consent to decommission Bradwell was granted in December 2003, subject to six conditions. The conditions attached to the consent relate to mitigation measures to prevent, reduce, and if possible offset significant adverse environmental effects of the decommissioning project. This is managed by the preparation and maintenance of an Environmental Management Plan (EMP). This issue of the EMP is structured in a way to clearly demonstrate how Bradwell meets the requirements of those conditions (listed in Appendix A). Other supporting information which may be of interest to the public, but is not directly required by the consent conditions, is located in the Appendices (e.g. stakeholder engagement, principles for a travel plan etc).

A detailed decision report was prepared by the HSE in 2003, describing the content of the conditions attached to the consent, the main reasons and considerations for the decision. The report can be accessed at the ONR website:

www.onr.org.uk/bradwell.pdf

or write to:

Office for Nuclear Regulation
Building 4
Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS
Tel: 0151 951 4000
email:EIA.Team@onr.gsi.gov.uk

Any queries relating to decommissioning activities at Bradwell should be addressed to:

The Closure Director
Bradwell Site
Bradwell-on-Sea
Southminster Essex
CM0 7HP

Requests for copies of this EMP should be addressed to:

Bradwell Document Centre
Sizewell A Site
Leiston
Suffolk
IP16 4UE
2. Scope of the Environmental Management Plan

The EMP details Bradwell’s environmental performance and provides examples of mitigation measures demonstrated over the past year. It also determines potential future environmental impacts and ensures that mitigation measures are identified, amended and implemented as necessary.

Geographical Scope

The project area at Bradwell is contained within the Nuclear Licensed Site boundary covering approximately 20 hectares. In addition to this the project area includes the barrier wall structure marking the cooling water inlet and outlet points. The site lies approximately 30 km due East of Chelmsford and 2.5km from the Northeast corner of the Dengie peninsula (Figure 1).

Figure 1: Location of Bradwell site

Duration

Magnox has adopted a generic decommissioning strategy, the Magnox Optimised Decommissioning Programme (MODP), which is being applied at Bradwell. This deferred site clearance strategy, or ‘Safestore’ strategy as it is sometimes called, consists of three main phases; Care and Maintenance Preparations, Care and Maintenance and Final Site Clearance. A summary of each phase for Bradwell is provided below.

Note: The transition between these phases is not immediate. Bradwell entered the Care & Maintenance (C&M) phase officially in November 2018, however, final backout activities are continuing to take place.

Care and Maintenance Preparations (C&MP)

This phase, consisted of the non-radioactive plant and buildings on the Site being dismantled; the only buildings to be left into C&M are the Reactor Buildings, ILW Store and the Ponds and Vaults complex weather envelopes. Intermediate level radioactive waste (ILW) has been retrieved from storage locations, processed and then placed into a new purpose-built store (until a suitable geological disposal facility becomes available). As a result of changes to the decommissioning scope, the Site’s substation has been left in place, together with portacabin offices and welfare facilities for security personnel. In addition, foundations and bases of structures are to remain in situ. Changes against the consented decommissioning scope have been assessed to determine their significance and mitigations put in place where required.

Care and Maintenance (C&M)

This is a mainly quiescent phase, lasting approximately 85-105 years after cessation of generation, during which no dismantling is carried out but the Site continues to be managed, monitored and maintained to ensure it is kept in a passively safe and secure state. The Site continues to be the subject of a Nuclear Site Licence during this period. The ILW Store will receive packages from other Sites within the region during the C&M period in line with other Site’s Lifetime Plan activities. Packaged ILW will be removed as and when a disposal route becomes available to receive the waste.

Although Bradwell has formally entered the C&M phase of the lifecycle, some residual works remain outstanding to demolish and withdraw from the Site. This includes demolition of remaining buildings, processing of residual waste, and demobilisation of personnel facilities and office accommodation. The relevant mitigation measures detailed within the C&MP phase shall be carried forward into the early C&M phase of the plan and will continue to be adhered to. In addition to full consultation with the Regulators where required, any further changes will be managed in accordance with the Site’s management control process that ensures the provisions of Regulation 13 of the EIA/DR99 (as amended) are met (see Appendix B). This EMP will be updated and re-issued to incorporate any major changes, as required.

Final Site Clearance (FSC)

The final phase of decommissioning is expected to last about 10 years. It involves dismantling of the remaining structures on the Site, including the reactors; the clearance of any residual radioactivity to the applicable standards; and de-licensing of the Site so that it can be made available for alternative use, as appropriate.
Note: As Bradwell has formally completed the C&MP phase of the work, the mitigation measures specific for that phase have been removed from the mitigation measures listed in section 3.1 of this EMP. However, any relevant mitigations assessed as required for the completion of the ‘residual works’ have been included in the C&M section. Mitigation measures for the remaining two phases are split accordingly.

Mitigation measures may change in the future in light of experience and developing technologies. The impacts of the later phases of work have been documented in the original Environmental Statement, but due to the difficulty in predicting the nature of environmental and regulatory regimes over long periods, more confidence should be attached to the assessment related to the earlier phases. Consequently, mitigation measures for activities during FSC will be refined, based on technologies available at that time.

Topics

Beneficial or adverse environmental impacts were divided into 9 topic areas within the original application to decommission Bradwell in April 2002. These topic areas are continued within the EMP and are:

- Air Quality and Climatic Factors
- Archaeology and Cultural Heritage
- Ecology
- Geology, Hydrology and Soils
- Landscape and Visual
- Noise and Vibration
- Socio-Economic
- Surface Water Quality and Drainage
- Traffic and Transport
3. The Site and Surrounding Area

Site Description

Bradwell is a Magnox Nuclear Reactor Site and is one of twelve currently managed by Magnox Ltd. The Nuclear Decommissioning Authority (NDA) gained ownership of the Bradwell site on 1st April 2005.

The Site in its current state comprises four large structures and the Site Security Lodge within a high metal fence which will remain for the duration of the C&M phase (large structures include the Reactor Buildings, Pond Complex and ILW Store). The large buildings are similarly constructed of brick/concrete and are overlaid in a corrugated metal. A small number of other buildings remain which shall be removed during the early stages of C&M. These consist of a mixture of building types including brick, concrete and/or steel frame corrugated metal structures and portable cabins. There is also a road network serving the Site.

A large void exists in the north western part of the Site created by the demolition of the Turbine Hall. This void has been partially filled through the re-use of suitable demolition material under a Material Management Plan following the Contaminated Land: Applications In Real Environments (CL:AIRE) Code of Practice. The remainder of the Turbine Hall void will be filled during C&M. The remaining areas of Site consist of hardstandings from foundations or bases of removed structures and managed grassland and scrubland which is generally of low floristic diversity.

Surrounding Landscape

Habitats present outside the Site include shrub, unmanaged grassland, ditches, plantation woodland and amenity grassland. To the east of the Site is an area of amenity grassland that is managed as a hay meadow. The section of the Borrow Dyke (see Figure 2) to the west of the site is characterised by having open water within its central area that is fringed by common reed. In contrast, the section of the Dyke that lies immediately to the north of the Site supports dense common reed with little surface water at all. The section to the east of the Site also holds little or no water and supports a mosaic of dense reed habitat and grassland dominated by sea couch.

Figure 2: The Borrow Dyke

Transport Infrastructure

The main vehicular access to the Bradwell Site is from the A414 at Maldon, then via the B1018 to Latchingdon, followed by the unclassified road C111 through the settlements of Mayland and Steeple, and then the B1021 to the Bradwell Site. An alternative but less direct route using B class roads is available by continuing on the B1018 to Southminster and then travelling north on the B1021, passing through Asheldham and Tillingham.

Sensitivity of the Receiving Environment

The Blackwater Estuary, the Dengie Flats and the Colne Estuary are all Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNRs). The boundaries of the Blackwater Estuary and Dengie Flats SSSIs meet on the shore adjacent to the Site, and the Colne Estuary designation lies off the north shore of the channel opposite the Site. All three form the majority of the Mid Essex Ramsar site complex and lie within the Mid Essex Coast Special Protection Area (SPA) and the Essex Estuaries candidate marine Special Area of Conservation (cSAC)\(^1\). The Blackwater also forms part of the Blackwater, Crouch, Roach and Colne Marine Conservation Zone which was designated in December 2013. These designations recognise the importance of the area for its estuarine habitats in general, for certain specified plant communities and habitat features, and for a wide range of species dependent upon these. The SPA and Ramsar designations relate to various wintering and breeding birds.

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\(^1\) Where a SPA or SAC is continuously or intermittently covered by tidal waters or includes any part of the sea adjacent to the UK, the site is referred to as a European Marine Site. The marine components of the Essex SPAs and SACs are treated as a single European marine site called the Essex Estuaries European Marine Site (EEEMS).
3.1 Identified Impacts and Mitigation Measures

In support of the application to decommission under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR99) and the Town and Country Planning (Environmental Impact Assessment) Regulations (TCP(EIA)), Environmental Statements (ES) were compiled in which potential impacts and key mitigation measures were identified for the three stages of decommissioning.

As the Site has formally completed the C&MP phase of the work, only the mitigation measures for the C&M and FSC phases are included in the plan. However, any relevant mitigations associated with the C&MP phase, assessed as required for the completion of the ‘residual works’, have been added to the C&M section.

The mitigation measures identified in both Environmental Statements are presented in the tables in normal script, the mitigation measures identified in the ES under EIADR99 only are in italics and those mitigation measures identified in the ES under TCP (EIA) 99 only are underlined.

Table 1: Care & Maintenance Phase (including residual works)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Nature of Impact</th>
<th>Mitigation Measures Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality and Dust</td>
<td>Dust emissions during excavation, demolition and construction activities, including storage and handling of soil and material.</td>
<td>• Dust generation from demolition and construction activities would have been completed.</td>
</tr>
<tr>
<td></td>
<td>Dust emissions during movement of vehicles.</td>
<td>• Few vehicles would be operating in and around site; a few vehicles may be involved in ILW removal from site however the contribution to air quality would be negligible.</td>
</tr>
<tr>
<td>Ecology</td>
<td>Disturbance to birds from traffic noise during removal of ILW.</td>
<td>• Removal operations will be programmed sensitively.</td>
</tr>
<tr>
<td></td>
<td>Increased road mortality for great crested newts during removal of ILW.</td>
<td>• The presence or otherwise of great crested newts could be monitored as part of site management during C&amp;M phase; • A detailed mitigation plan will be developed.</td>
</tr>
<tr>
<td>Geology, Hydrogeology and Soils</td>
<td>Changes to groundwater quality through disturbance of contaminated soils from excavation of subsurface structures and/or services.</td>
<td>• Management of contaminated soils to avoid leaching into previously clean soils and groundwater; • Groundwater monitoring to provide assurance for water quality during C&amp;M phase.</td>
</tr>
<tr>
<td>Landscape and Visual</td>
<td>Visual impact from the constructed Interim Storage Facility (ISF).</td>
<td>• The planting management regime (e.g. replacing of trees and scrubs, thinning) would be agreed with the local planning authority, as relevant and appropriate.</td>
</tr>
<tr>
<td>Surface Water</td>
<td>Avoidance of localised flooding.</td>
<td>• Drainage facilities in place during and after C&amp;M period to avoid localised flooding.</td>
</tr>
</tbody>
</table>

Additional Mitigation measures carried forward from C&MP to cover demobilisation

<table>
<thead>
<tr>
<th>Topic</th>
<th>Nature of Impact</th>
<th>Mitigation Measures Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality and Dust</td>
<td>Dust emissions during excavation, demolition and construction activities,</td>
<td>• Minimising unnecessary handling of materials; • Carrying out activities during a period of poor dispersion conditions (i.e. very low wind speeds)</td>
</tr>
</tbody>
</table>

Environmental Management Plan 2019/20 – Bradwell Site
<table>
<thead>
<tr>
<th>Topic</th>
<th>Nature of Impact</th>
<th>Mitigation Measures Proposed</th>
</tr>
</thead>
</table>
| Geology, Hydrogeology and Soils | Spread of contamination from any excavations that may encounter contaminated soils, including potential inappropriate use of contaminated soils as infill material. | - Sampling, testing and appropriate management of soils during excavation; containment and off-site disposal of contaminated soils. Any excavated soils identified as contaminated will be segregated from non-contaminated soils and carefully managed to prevent the spread of contamination, then disposed of off-site at appropriate disposal facilities, subject to the necessary regulatory permissions;  
- Imported fill material will be inspected to ensure it is not contaminated and that it meets, at least, the Waste Resources Action Programme (WRAP) aggregate specification. |
| | Spread of contamination from any demolition waste, including potential inappropriate use of contaminated demolition waste as infill material. | - Sampling, testing and appropriate management of demolition waste; containment and off-site disposal of contaminated demolition waste;  
- Excavations will be covered, where possible, to avoid water accumulation. |
| | Spread of contamination from any excavations that may encounter or accumulate contaminated waters. | - Control of water ingress; testing and appropriate management of water entering excavations with contaminated soils. |
| | Risks of spills to ground of fuel or chemicals. | - Bunding of chemical and fuel storage according to regulations; appropriate protocols for chemicals and fuel handling in line with regulations and industry best practice;  
- Emergency spill response planning according to regulation and industry best practice, including spill kits kept on Site. |
| | Changes to groundwater level. | - Inert backfill (e.g. uncontaminated demolition rubble from the site) would be placed and |

2 Mitigation measures to be implemented only during FSC and/or ILW removal to repository are not included in this list.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Nature of Impact</th>
<th>Mitigation Measures Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape and Visual</td>
<td>Visual impact from site wide demolition activities and LLW facility, ILW store.</td>
<td>• A planting scheme will be implemented; • Design and choice of the colour of cladding materials have been developed with the aim of reducing the visual impact.</td>
</tr>
<tr>
<td>Noise and Vibration</td>
<td>Noise from site activities.</td>
<td>• All construction activities to be undertaken in accordance with good practice as described by British Standard 5228:2009 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; • The site can be contacted to make complaints and queries. Complaints to be investigated and action taken where appropriate; • Use of equipment fitted with effective silencers/insulation; • Main noise generating activities restricted to daytime hours, work outside these hours will be agreed with the local authority; • Mitigation by distance and screening will be maximised where possible; • Use of concrete crushers rather than pneumatic hammers.</td>
</tr>
<tr>
<td>Socio-Economic</td>
<td>Change in site employment level in the local economy.</td>
<td>• Magnox Ltd will attempt to re-deploy affected staff, phased employment reductions provide opportunities for early retirement/severance &amp; support staff re-training/ re-skilling; and • Magnox Ltd will encourage its contractors to make use of local labour, equipment and services as far as practicable.</td>
</tr>
<tr>
<td>Surface Water Quality and</td>
<td>Minimisation of turbid water or contaminants entering surface water drains on Site.</td>
<td>• Minimising the stockpiling of loose materials and the area of bare ground; • Minimising the movements of soil during wet weather; • 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; • 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; • Careful design and siting of spoil mounds as necessary to manage run-off, including use of low walls around such mounds if appropriate; • The discharge of surface water drainage would be passed through a silt trap or appropriately sized grills used on drains, to ensure that the quantities of sediment discharged from the site are controlled; • Sheeteting or seeding of any stockpiles of soil or potentially contaminating materials; • Dewatering effluents from excavation areas would be collected and managed to prevent any uncontrolled discharges to surface water courses;</td>
</tr>
<tr>
<td>Topic</td>
<td>Nature of Impact</td>
<td>Mitigation Measures Proposed</td>
</tr>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>• Clauses in work contract documents would seek to ensure that surface water drainage is controlled to ensure that adverse impacts on the receiving watercourses and the estuary are avoided or minimised; • Excavations will be covered where possible to prevent water accumulation and to prevent contamination of surface water; and • See also measures under Geology, Hydrogeology and Soils.</td>
<td>Minimisation of risk of spills of concrete, cement, fuels, oils or other chemicals.</td>
<td></td>
</tr>
<tr>
<td>• Appropriate protocols for handling of concrete, cement, fuel and any other chemicals, in line with regulations and industry best practices.</td>
<td>Minimisation of impact upon surface waters of any spills of concrete, cement, fuels, oils or other chemicals.</td>
<td></td>
</tr>
<tr>
<td>• Careful siting of concrete batching plant (if used) and fuel/chemical handling facilities according to regulation and industry best practice (i.e as far as possible from watercourses and surface water drains and on impermeable base for refuelling); • Oil separation facilities will be installed on the surface water drainage system at appropriate locations and a maintenance programme undertaken; • Bunding of fuel storage according to Oil Storage Regulations; and industry best practice; • Emergency/spill response planning according to regulation and industry best practice; e.g. provision of spill kits kept on site and a site spill response plan.</td>
<td>Flooding or Bank Erosion.</td>
<td></td>
</tr>
<tr>
<td>• Control of rate of discharge to surface water drains (if discharge is necessary).</td>
<td>Traffic and Transport Impacts on safety etc. due to decommissioning traffic.</td>
<td>A Transport Plan will be implemented with the objective of reducing the number of trips generated by the site throughout the entire decommissioning process.</td>
</tr>
<tr>
<td>• Wheel washing of HGVs as necessary.</td>
<td>Impacts on safety etc. due to mud on roads.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Final Site Clearance Phase**

**Mitigation measures already identified (Condition 3a)**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Nature of impact</th>
<th>Mitigation Measures Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>All topic areas</td>
<td>It is predicted that the impact may be as those identified in Table 1.</td>
<td>• Mitigation measures proposed for this section are identical to those specified in Table 1.</td>
</tr>
</tbody>
</table>
3.2 Future mitigation measures (Condition 3b and 3c)

Work activities beyond final site clearance phase have not yet been identified. As a result a list of mitigation measures required during any future phases cannot yet be identified.

3.3 Activities where mitigation measures may be required but cannot yet be identified and assessed (Condition 3c).

Currently no such work activities have been identified.
4. Implementation of the Environmental Management Plan

It is a requirement of the conditions attached to the consent (Appendix A), to implement the mitigation measures and describe their effectiveness. This chapter lists the mitigation measures implemented, explains how the Site evaluates their effectiveness in reducing environmental impacts, and describes their use in some relevant projects on Site.

Process for Implementation of Mitigation Measures

Magnox Company and Site procedures ensure that decommissioning activities are carried out in accordance with the mitigation measures set out in this EMP. All decommissioning projects and modifications to plant are assessed during the proposal stage (see Appendix B) in accordance with robust company management control procedures.

There are a number of tools used on Site to ensure that all environmental impacts are minimised. The Company has an Integrated Management System, which covers the requirements of ISO9001 (Quality Assurance), ISO14001 (Environmental Management System) and OHSAS18001 (Occupational Health and Safety Assessment System).

Bradwell also undertakes Best Available Techniques (BAT) studies for those projects where it is deemed there is a potential for significant radioactive and non-radioactive discharges and disposals from the site, e.g. site waste management, decommissioning or restoration projects, and where it is required to demonstrate that these impacts are minimised through evaluation by a clear, systematic process.

Processes 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 these in order to ensure successful reduction of significant environmental impacts. Critical to environmental protection is the close interaction between the Project Teams and Environment Department, ensuring mitigation measures are considered, applied and reviewed, where relevant, throughout the lifecycle of the project from conception to completion. It also allows supervision and practical evaluation of the effectiveness of the mitigation measures. Evaluations can provide valuable feedback on any difficulties encountered, changes required or highlight further mitigation requirements.

The Site measures the effectiveness of mitigations in a variety of ways outlined below.

i) Environmental Performance Monitoring

Environmental performance monitoring (e.g. groundwater monitoring), using specialist equipment, allows us to assess environmental impacts post-mitigation (as well as baseline). The effectiveness of radiological mitigations are monitored via the Site’s Environmental Monitoring Programme.

ii) Visual evidence

Site walkdowns and photographs of the areas where work is planned help to identify potential environmental receptors in the vicinity (e.g. surface drains) and hence highlight mitigation measures that need to be implemented. Visual inspections and photographs during work can also provide an indication of effectiveness of mitigation measures. For example, presence of mud on roads can be an indication of insufficient wheel washing of heavy goods vehicles.

iii) 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. For example, where mitigations may not be effective or where further mitigations are required. The site operates a robust system of internal event reporting, where workers are encouraged to report conditions which are unsafe or pose a threat to the environment. As part of this system, events are investigated and, where necessary, remedial actions are put in place.
Examples of Mitigation Measures Implemented on Project Activities at Bradwell

Air Quality and Climatic Factors

Dust suppression continues to be employed on all demolition works on Site.

Fuel Element Debris (FED) Treatment

The dissolution of FED was completed in June 2017. No further FED effluent will be created or discharged and NOx emissions have also ceased. The Fuel Element Debris Dissolution (FEDD) plant along with the NOx scrubber columns have been deplanted and the remaining building has been demolished.

Ecology

During the C&M preparations phase, a reptile fence was maintained to prevent reptile ingress and any injury or death to protected species from the decommissioning works. This will be removed once all residual physical works are complete.

Additional tree and shrub landscape planting has commenced in accordance with the ‘Bradwell Site Landscaping Scheme’. This has the combined benefit of providing additional or enhanced foraging habitat (specifically beneficial in relation to the loss of habitat of the great crested newt) and reducing the visial impact of the site.

To further maintain and increase biodiversity on-site, two peregrine falcon nesting boxes have been mounted, one on each of the newly clad reactor buildings. A pair of peregrine falcons have successfully fledged chicks from their home in the nesting box on Reactor 1. The Site is hopeful that this indicates that they are likely to return each year.

Geology, Hydrology and Soils

Sampling of soils prior to excavations is undertaken and this information is used to advise projects in the area of any known or potential land contamination. Concrete, demolition material and other excavation spoil is subject to testing to determine whether it meets the inert criteria under the waste acceptance criteria, and this material is then re-used on Site wherever possible.

The CL:AIRE Code of Practice (Contaminated Land: Applications in Real Environments) continues to be implemented on Site to manage excavated and demolition materials. A Materials Management Plan (MMP) has been written under the protocol which allows source segregated aggregate arising from demolition activities, such as crushed brick and concrete, to be reused on-site as fill material for on-site voids.

Material generated from excavation works such as the new Cess Pit has also been used for infilling of voids on Site under the CL:AIRE protocol. The re-use of excavated material has and will continue to reduce the quantity of resources required as it reduces the requirement for imported fill material. So far, approximately 14000m$^3$ of material has been re-used on Site (approximately 5,000m$^3$ added in 2018). This reduces the cost of waste disposal and the importation costs associated with new in-fill material. Re-using site material also significantly reduces the CO$_2$ emissions associated with the handling and disposal of excavated material as well as the transport of new in-fill material to Site.

Use of the CL:AIRE protocol helps to ensure that the Site uses spoil and concrete in a sustainable manner, and adheres to environmental best practice.

Material will continue to be re-used under the CL:AIRE protocol and the Site’s Materials Management Plan until completion of the residual works. The plan shall then be closed out with a verification report. Any future infilling to the Turbine Hall void will require the preparation of a new Materials Management plan.
**Land Remediation and Land Quality**

Borehole and ground water sampling continue to be carried out to monitor for the presence of radionuclides and/or hydrocarbons. It aims to ensure any migration of contaminants is detected and managed in accordance with a remediation strategy, where applicable. Monitoring will continue during C&M.

**Landscape and Visual**

Cladding of the Reactor Buildings weather envelopes are now complete. The Reactor Buildings weather envelopes are the most visually dominant structures at Bradwell as well as in the surrounding area. The potential visual impact was taken into consideration at the design stage and as a result the cladding material was chosen to be sympathetic to the surrounding environment. The cladding is designed to safely encompass the reactors throughout the C&M phase.

Following the demolition of some of the redundant buildings within the Ponds Complex, the Ponds Complex weather envelope is now complete (Figure 5). The weather envelope over the ponds and vaults is sympathetic to the other remaining structures, i.e. the reactor weather envelopes (Figure 6) and the ILW Store.

All plant/buildings are finished in a colour that allows them to blend with the Reactor Buildings (light grey).

**Noise and vibration**

Intrinsically noisy work activities are limited to standard working hours.

**Socio-Economic**

The Socio-economic scheme is managed by Magnox on behalf of the NDA and has a funding portfolio of up to £1million each financial year across the 12 Magnox sites. £6,000 is allocated for ‘Good Neighbour’ applications of up to £1,000 each. Over the last two years Magnox has been part of, and supported, the Bradwell Legacy Partnership Group by funding the role...
of the Group Secretariat (£33,000 over two years) in line with the timescales for Bradwell entering Care & Maintenance. The tenure of the partnership is soon coming to a close. However, work initially undertaken through the partnership continues and Magnox is now in discussions to see how best to support the surrounding area in the coming years to help mitigate the closure of the site. In 2017, Magnox contributed £90,000 in conjunction with Maldon District Council towards a comprehensive feasibility study for a Maldon District Enterprise Centre. Work is continuing within Maldon District Council to assess the findings.

Last year the Magnox Socio-economic Scheme funded three successful ‘Good Neighbour’ projects. These projects were a Rail Ale Trail, and supporting a local badminton and a cricket club. Three applications were also funded under the sustainable communities theme for a total of £15,985, namely Fellowship Afloat Charitable Trust, Local Food and Drink Festival (2019) and Burnham-on-Crouch School. A few more applications remain in progress for financial year 2019/20. This support will be ongoing for the foreseeable future. For further information or to apply go to: www.magnoxsocioeconomic.com.

Surface Water Quality and Drainage

A programme of drainage inspections and repairs has been completed. Smaller diameter drains were replaced with larger ones to manage drainage during heavy rainfall events. In addition a programme of silt removal was completed culminating in removal of silt from the Main Drains Pit.

The Site has completed the installation of four new pipelines within the existing east outlet culvert (Figure 8). The pipelines will be for all on Site aqueous arisings, such as surface water run-off in C&M. This discharge route has been granted an environmental permit subject to notification to the Environment Agency (EA). Work to connect these pipelines is in progress.

Traffic and Transport

Transport Plans are produced for individual projects where significant traffic movements are expected (for example importation of packaged ILW from Dungeness and Sizewell A Sites). The plans detail the preferred road routes and transport options. When waste is expected to be generated, disposal Sites within close proximity are favoured, and skips are double loaded to reduce the number of journeys needed.

Movements of HGVs are planned, where possible, to minimise the impact to the local communities and to avoid local peak traffic times, i.e. 06:30 – 07:30 and 17:00 - 18:00.

Contractors are encouraged to utilise shared transport for their staff. In addition, the Site introduced a car sharing scheme through liftshare.com to further reduce its carbon footprint.
5. Changes to the Environmental Management Plan

Since the start of decommissioning works on Site, a number of changes have been made to the consented Environmental Statement. The Environmental Statement provides the description of works proposed for the decommissioning activities. Below are some of the key changes to the consented activities proposed in the Environmental Statement.

**FED Dissolution and Treatment of Resulting Effluent (Completed)**

The FED dissolution plant was fully commissioned in 2015. This option was used for treatment of FED instead of encapsulation in cementitious grout proposed in the original Environmental Statement issued in 2002. The process generated radioactive aqueous and gaseous discharges. The resulting aqueous effluent was treated in an aqueous discharge abatement plant which reduced the radioactivity to within permitted limits, achieving on average 90% reductions in levels of radioactivity. Heavy metals were also significantly reduced during the treatment process. Treated effluent from this highly efficient and innovative process was carefully analysed and monitored at the Site's laboratory. This ensured it met all the EA's permitted criteria before discharge.

Dissolution of FED was completed in June 2017, no further FED effluent will be created or discharged and NOx emissions have also ceased. The FED dissolution plant, aqueous discharge abatement plant, and NOx scrubbers have now been deplanted and the buildings demolished.

**Importation of ILW from Sizewell and Dungeness to Bradwell Interim Storage Facility**

The waste strategy for the company has been reviewed and endorsed by the Nuclear Decommissioning Authority (NDA). The new strategy includes importing packaged ILW from Sizewell A and Dungeness A to Bradwell for storage in the Interim Storage Facility (ISF) until a geological disposal facility becomes available.

The spare storage capacity is as a result of contingency space built into the Bradwell ISF that has not been used, and through reductions achieved in the volume of ILW through waste processing efficiencies. Storage of imported ILW packages in the Bradwell ISF will avoid the construction of two additional ILW Stores in the south east, delivering significant safety, environmental and cost benefits, and reducing costs to the UK taxpayer by approximately £30 million.

ILW package transfers from Dungeness A have commenced and are anticipated to continue until approximately 2020. The proposed work period may change depending on the NDA funding availability.

**Leaving Foundations and Slabs of Buildings On Site During C&M**

Foundations and slabs of buildings/structures demolished/removed as part of the decommissioning activities will be left on Site during C&M. This is part of a revised Licence Condition (LC)35 Assessment for proposed changes to Bradwell Site Decommissioning Strategy. The previous strategy stated that redundant facilities (primary non-contaminated structures) would be deplanted and demolished to below ground level. Slabs/foundations were to be removed or made safe.

It is now proposed to leave materials that do not present an immediate hazard to the environment and people, in-situ until FSC. The slabs and foundations have been assessed not to pose any immediate hazard. Therefore removing them would not provide any environmental or cost benefits or detriments. This revision of the decommissioning strategy will not result in a change in duration of the decommissioning works.

**Leaving the Turbine Hall Void Unfilled Going into C&M**

As part of a revised strategy for C&M, the Turbine Hall void will be left partially filled at C&M entry. This contradicts the original Environmental Statement which states that all voids on Site are to be filled at C&M entry. The ES states that voids will be back filled with inert material once structures have been demolished.

The Turbine Hall void is approximately 41,000m³ and at C&M entry not enough material had been generated through decommissioning activities to fulfill the commitment. The deferral of infilling activities has presented two different scenarios which require an environmental impact assessment to be carried out:

1) Fill the void throughout C&M as and when material in the local area becomes available; or

2) Fill the void at FSC.

**Change of Welfare Facility Requirements for C&M**

It was intended that no permanently installed welfare facilities would remain on Site in C&M. However, due to a change in security strategy, facilities will be required for the early years of C&M. Welfare facilities comprise two portacabins with hygiene and mess services. A cess pit has been installed which is emptied by tanker on a regular basis and does not discharge to the environment.
Residual works and Demobilisation Activities in C&M

The Site received the C&M Licence Instrument from the ONR in November 2018. Whilst this event signals the start of C&M, the definition of C&M in the ES does not provide for a period of transition and demobilisation from C&M. Whilst the majority of the Site is in a passive and quiescent state, some residual work remains and there is the requirement to demobilise the personnel, facilities and accommodation remaining from C&M. These works include processing of residual wastes, installation and operation of new main drains pumping system, demolition of remaining buildings (including waste processing facilities), other minor works and final demobilisation of personnel accommodation and facilities.

Throughout C&M there is the potential that material will become available from local earthworks which could provide a source of aggregate to fill the Turbine Hall void. For example, a significant volume of material could be generated through the excavation earthworks from EDF’s proposed civil nuclear new build which may be located adjacent to the current Bradwell Site. The impact of importing materials from the potential works has not been assessed in the current ES and it is likely that a new transport plan would have to be implemented.

Summary of Changes to the Environmental Management Plan

Change of scope environmental impact assessments for all the above changes have been carried out and the effects were found not to be significant. They have been recorded as ‘Findings of No Significant Effect’ as prescribed in the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations, 1999, as amended (EIADR).

Some changes to mitigation measures may be required as a result of changes to decommissioning and waste management strategies (e.g. acceleration of decommissioning, changes to ILW processing and storage arrangements).

Those changes to Site strategy will be assessed following appropriate requirements and company procedures. If that assessment indicates a need for mitigation measures in the EMP to be significantly changed, then Bradwell site will notify the ONR of such change no less than 30 days before the change is made, or within such shorter time as the ONR may agree.

The EMP will also be updated appropriately and re-issued.
6. Distribution of the Environmental Management Plan

In addition to the submission of this EMP to the ONR, Magnox Ltd will make the document publicly available via the Magnox website. This EMP will be sent to:

- Environment Agency
- Nuclear Decommissioning Authority
- Local Community Liaison Committee
- Essex County Council
- Maldon District Council
- Bradwell Parish Council

Copies of this EMP can be viewed at the following locations:

**Burnham On Crouch Library**  
103 Station Road  
Burnham-On-Crouch  
CM0 8HQ  
Tel: 01621 782006

**Maldon Library**  
Carmelite House  
White Horse Lane  
Maldon  
CM9 5FW  
Tel: 01621 853556

**Chelmsford Library**  
Market Road  
Chelmsford  
Essex  
CM1 1LH  
Tel: 0845 603 7628
Appendix A: Decommissioning Consent

Decommissioning Project Consent No.1

December 2003

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)

BRADWELL POWER STATION

The Health and Safety Executive, for the purposes of regulation 4(b) in accordance with regulation 8(3), hereby 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, store the intermediate level waste until it can be removed from the site, and clear the site, subject to the conditions under regulation 8(4) attached.

Dated: 5\(^{th}\) December 2003

For and on behalf of the Health and Safety Executive

Signed

M W Weightman
A person authorised to act in that behalf

\(^1\)Project as defined in regulation 2
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)

BRADWELL POWER STATION

Condition 1
The project\(^2\) shall commence before the expiration of 5 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 further information provided under regulation 10(1), the environmental management plan shall:

a. list the mitigation measures that are already identified;

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 were 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:

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

\(^2\)Project as defined in regulation 2
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: 5th December 2003

For and on behalf of the
Health and Safety Executive

Signed

M W Weightman
A person authorised to act in that behalf
## Appendix B: Site Procedures for Reducing Impact

### Minimising Environmental Impacts — Decommissioning Proposal Approval Form

#### PART 5 – ENVIRONMENTAL SAFETY ASSESSMENT

Both 5.1 and 5.2 are to be categorised individually before an overall environmental category is assigned in 5.3.

### 5.2 EIADR 99, ENVIRONMENTAL IMPACT AND OTHER REGULATORY COMPLIANCE

The following checklist must be completed by an Environmental SQEP (with LQ/planning consultation as required). The assessment is for compliance with the EIADR99 Regulations, Planning requirements, non-rad. permits/consents, other relevant legislation and environmental issues including management of land quality.

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>CONSIDER POTENTIAL FOR:</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.1 Decommissioning Baseline</td>
<td>Does this proposed modification represent a change from the Decommissioning Project baseline as described in the EIADR 99 Environmental Impact Assessment Baseline document (in particular, is it sufficient to trigger Regulation 13 determination)? If 'YES', (F-871 and F-872, as necessary) in accordance with S-159.</td>
<td></td>
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<tr>
<td>5.2.2 Planning</td>
<td>Does the proposal involve building or structures construction, external modification or demolition (planning permission)? Does the proposal involve on-site/inter-site disposal/transfer of waste (including stockpiling) in any form? If 'YES' confirm if permissions have been agreed, or identify how this will be addressed prior to implementation of proposal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2.3 Non-radioactive Discharges &amp; Waste</td>
<td>Could the proposal, if inadequately conceived or executed, lead to a breach of an existing Environmental Permit/consent, or other environmental licence/regulatory requirement (e.g. controlled activities reg.s, pollution control permit, wildlife management license, PCB registration, marine consent, waste management exemption)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2.4 Non-radioactive Discharges &amp; Waste</td>
<td>Is a change to an existing Environmental/PPC Permit, Licence or Consent or new Environmental Permit or registered waste management licence or exemption required for this proposal?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2.5 Land Quality</td>
<td>Will the proposed work involve ‘breaking ground’ or otherwise have the potential to affect the sub-surface or controlled waters? If 'YES', complete form F-158 in accordance with S-154, and ensure that any required mitigation measures are included in this DPAF.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2.6 Other Environmental Impacts</td>
<td>Could the proposal, if inadequately conceived or executed, lead to an unacceptable environmental impact? (Consider relevant legislation and formal guidance). If so, appropriate controls/ mitigation must be specified.</td>
<td></td>
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</tbody>
</table>

If all answers are ‘NO’ then the proposal is Category E3. If ‘YES’ is answered to any questions above, then assess the environmental impacts and provide further information below.

### 5.2.8 CONTROL MEASURES AND COMMENTS

Describe the control measures that will be used to ensure that environmental risks are adequately managed. Refer to environmental assessments and BAT studies where appropriate.

### 5.2.9 Potential Environmental Category with respect to EIADR 99 Compliance and all other environmental aspects:

<table>
<thead>
<tr>
<th></th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
</tr>
</thead>
</table>

Name: __________________________ Signature: __________________________ Date: __________________________

*Environment SQEP*
### PART 5 – ENVIRONMENTAL SAFETY ASSESSMENT

Both 5.1 and 5.2 are to be categorised individually before an overall environmental category is assigned below.

#### 5.3 OVERALL ENVIRONMENTAL ASSESSMENT

To be completed by the NRE, with signatures from Environmental SQEP/PRSLA and EHSS&Q Manager as appropriate.

#### 5.3.1 ENVIRONMENTAL JUSTIFICATION / MITIGATION

Refer to control measures under 5.1 and 5.2, make a summary statement. Also consider if there is any conflict between mitigations that need to be addressed or if additional mitigations are required overall.

#### 5.3.2 OVERALL ENVIRONMENTAL CATEGORY

The environmental category is determined by reviewing the adequacy of the environmental hazard identification and assessment carried out and consider whether any other relevant aspects of the category definitions given in MCP-099 Appendix 1 are relevant. Select the relevant box below.

Environmental control and mitigation measures required have been identified above and will be incorporated in the design or working methods. Any further Environmental Justifications (e.g. BAT / BPM) should be attached.

**RECOMMENDED ENVIRONMENTAL CATEGORY:**

<table>
<thead>
<tr>
<th></th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment SQEP/PRSLA</td>
<td>Signature:</td>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>

For category E1 modifications, two additional signatures are required:

1) Confirm awareness of the modification proposal.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EHSS&amp;Q Manager</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2) Confirm that the modification proposal has been reviewed by Head of Profession – Environment and that comments / recommendations have been addressed.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NRE</strong></td>
<td></td>
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</tbody>
</table>
Appendix C: Stakeholder Engagement

Whilst decommissioning represents a new phase in the lifecycle of the site, Magnox Ltd remains committed to engaging with stakeholders during all phases in the process.

Regular meetings are held with the Local Community Liaison Council (LCLC). This includes elected local Parish and District Councilors, representatives from the EA and the ONR, as well as members of the general public.

Throughout the year the Local Community Liaison Council (LCLC) has continued to be the primary communication tool to engage the local community. Magnox has been part of, and supported, the Bradwell Legacy Partnership Group by funding the role of the Group Secretariat (£33,000 over two years) in line with the timescales for Bradwell entering Care & Maintenance; the tenure of the partnership is soon coming to a close. However, work initially undertaken through the partnership has continued in parallel and Magnox is now in discussions to see how best to support the area in the coming years in order to help mitigate the closure of the site.

Regular meetings with the regulators (EA & ONR) are held at Bradwell site. Following entry into C&M, the management of Bradwell Site will be undertaken by Sizewell A staff. As such, some regulatory review of Bradwell management and arrangements may take place during dual visits to Sizewell A Site.

The role of the Nuclear Decommissioning Authority (NDA)

The Energy Act (2004) (as amended) requires that the NDA must prepare a strategy for carrying out its functions and from time to time to revise that strategy. This strategy must set out the steps that the NDA proposes to take for:

- giving appropriate publicity to its responsibilities and strategy;
- explaining them both to persons having a particular interest in matters relating to the carrying out by the NDA of its functions and to the general public;
- ensuring that the NDA is kept informed at all times of the opinions about such matters of persons having such a particular interest; and
- facilitating the communication by such persons of their opinions to the NDA.

The NDA is also required to give encouragement and other support to activities that benefit the social or economic life of communities living near those sites for which it has responsibilities, including Bradwell.

The NDA’s strategy requires the NDA to review Site End States in consultation with stakeholders. The process consists of various stages of stakeholder consultation aimed at arriving at Site End State Definitions that will be reconciled with national requirements before being incorporated into the revised NDA Strategy.
Appendix D: Land Quality Assessment Form

In considering proposals for work on Site, a number of questions relevant to land quality must be answered, as set out in this form.

1. Does the proposed work have any potential for disturbance / mobilisation of existing contaminated ground and/or groundwater?

   1a. Will the proposed work involve ‘breaking ground’ or otherwise have the potential to affect the sub-surface?
   
   Such work may involve excavations, advancing of boreholes or piles, changes in ground cover, changes to surface water drainage, groundwater abstraction, ground de-watering.
   
   If the answer to 1a is Yes:

   1b. Is there any existing known or suspected contamination of land (ground and/or groundwater) that could be affected significantly by the proposed work?

   The answer to this question shall be based on the **Site Land Quality Interface** person consulting the site’s **Land Quality Map** and related **Land Quality Register**, noting that indirect effects such as modification of groundwater pathways can mean that work in one area may affect contamination present in another area. If in doubt, consult the **Land Quality Technical Lead** for the site.

   If the answer to 1b is Yes:

   Give details of the mitigation measures specified to eliminate / mitigate any potential impacts.

   Specified mitigation measures:

<table>
<thead>
<tr>
<th>Was specialist advice sought in answering Question 1?</th>
<th>Yes/ No*</th>
</tr>
</thead>
</table>

   Give details of who was consulted. Give name and role, e.g. **Land Quality Technical Lead** or Environmental SQEP:

2. Does the proposed work have any potential to result in exposure of those undertaking the work to contaminants at levels that should be taken into account in the Method Statements and Risk assessments for the work?

   This question should be answered with reference to the site’s **Land Quality Map** and related **Land Quality Register**. If yes, detail the measures to be put in place to provide adequate protection of the workers.
Specified mitigation measures:

<table>
<thead>
<tr>
<th>Was specialist advice sought in answering Question 2?</th>
<th>Yes/No *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give details of who was consulted. Give name and role, e.g. COSHH Assessor / Accredited Health Physicist:</td>
<td></td>
</tr>
<tr>
<td>Assessment prepared by (give name &amp; role ³ and date):</td>
<td></td>
</tr>
<tr>
<td>Assessment approved by (give name &amp; role ⁴ and date):</td>
<td></td>
</tr>
<tr>
<td>Completed form to be filed as appropriate - e.g. with relevant Decommissioning Proposal Approval Form (DPAF; F-142).</td>
<td></td>
</tr>
</tbody>
</table>

Unexpected contamination: Any unexpected contamination identified during the works shall be reported to the Nominated Responsible Engineer, to the site’s **Site Land Quality Interface** person and to the **Land Quality Technical Lead** for the site, who will provide initial advice on what action to take and whether to amend the **Land Quality Map** and **Land Quality Register**.

Note: * Delete as applicable

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³ This would normally be the Nominated Responsible Engineer for the relevant DPAF.

⁴ This would normally be the **Site Land Quality Interface** person, or the **Land Quality Technical Lead** if the answer to Question 1b is ‘Yes’.
Appendix E: Principles for a Travel Plan

Objective

All decommissioning operations involving transport will be managed so as 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

- The numbers of individual transport movements will be minimised as far as is reasonably practicable.
- Employees and contractors will be encouraged to use video and teleconferencing facilities as much as possible rather than travelling to other sites for meetings.
- Employees and contractors will be encouraged to share transport (or use public transport) when travelling to and from the Bradwell Site.
- Magnox Ltd and its 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 disposal sites, recycling companies, etc.
- Most HGV transport movements will be undertaken during normal working hours.
- HGVs will be required to exit the Site through the Bradwell Site main gate and, where appropriate, to follow preferred routes to and from the strategic road network.
- In the event of the need for an abnormal load to be transported, a specific plan for this movement will be developed.