

CNC Operational Unit Construction Environmental Management Plan For Sellafield Ltd

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1.0 Introduction and Description of the Works

1.1 Introduction

- 1.1.1 This Construction Environmental Management Plan (CEMP) has been produced in support of the planning application for the new Civil Nuclear Constabulary (CNC) Operational Unit at the Sellafield Site in Cumbria.
- 1.1.2 The CEMP has been designed to include details and mitigation measures to control the environmental impacts of the work phases. It also includes procedures for auditing, monitoring, investigating complaints and liaison with appropriate representatives from the relevant local authorities.

1.2 Background

1.2.1 Recent experience with Sellafield projects has been that pre-commencement planning conditions have been imposed, which require the production of a CEMP. Therefore, this CEMP has been produced and submitted alongside the planning application to provide confidence to stakeholders that environmental issues will be appropriately considered and where necessary, mitigated throughout the construction period.

1.3 Purpose of Document

- 1.3.1 The main aims of this document are to;
 - Identify environmental aspects (hazards and risks);
 - Provide a mechanism for ensuring that measures to mitigate potentially adverse impacts can be implemented during the construction works;
 - Ensure that best practices are adopted throughout the construction works;
 - Provide a framework for mitigating unexpected impacts during works; and,
 - Provide a framework to monitor and record those works which have the potential to affect the environment.



- 1.3.2 In line with the Construction Industry Research and Information Association (CIRIA) guidance on environmental good practice at construction sites, environment plans will be regularly revised and in constant use.
- 1.3.3 For example, this document could be updated numerous times for a range of reasons, such as changes to proposed methodologies and scope, to include responsibilities against specific individuals for certain activities, to incorporate best practice management approaches generated by different contractors, to reflect any new requirements which may apply at Sellafield generally and also to capture any specific planning consent conditions which apply to the project. As such it is important that the project has the flexibility to update this document effectively and efficiently without having to seek approval for changes from external bodies such as the Local Planning Authority or the Environment Agency.
- 1.3.4 Should any changes be considered which are assessed as potentially sensitive, Sellafield Ltd will ensure that appropriate consultation with relevant external bodies (such as the Environment Agency) takes places prior to their adoption. Any changes that will be made, will be done following due consideration of standard construction environmental management good practices and also of all relevant local Sellafield Ltd requirements and are expected to be broadly in line with the contents of this initial version.
- 1.3.5 The latest version of this CEMP will be made available to project and site personnel, and will also be made available on request, to the Local Planning Authority or Environment Agency, should they express a wish to see any of the future versions. It will also be shared with the project Environment Agency inspector(s) as part of routine progress reviews which are carried out.

1.4 Summary of Project

1.4.1 A new building is being provided to house facilities for the CNC on Sellafield site to include office accommodation and welfare. The chosen location is a section of land in the 'north group' area of site. The new building will occupy part of a piece of land previously the site of process plant, which has been demolished. In addition to the accommodation, part of the land parcel may be used for construction activities and laydown areas.



2.0 Principal Contractor's Roles and Responsibilities

2.1 General Arrangements

2.1.1 The table below provides indicative project roles and will be updated to provide specific details and responsibilities of the project team once they have been determined.

Job Role	Appointed Person	Deputy	Responsibilities
Env advisor			
Env intelligent customer			
Waste Advisor			
LCC			
Waste supervisor			
Plant Solid Waste Co- ordinator			
etc			

2.2 Responsibility of the Principal Contractor

The Client (Employer) -

2.2.1 The Client is ultimately responsible for the content and implementation of this CEMP. This involves ensuring that all project staff comply with the requirements of the CEMP. Relevant environmental expertise and direction will be thorough the environmental Intelligent Customer.



Project Director

2.2.2 It is envisaged that the appointed Project Director shall be responsible for ensuring the delivery of the environmental requirements of the contract.

Principal Contractor- Project Manager

- 2.2.3 The Principal Contractor will comply with all elements of this CEMP and shall be responsible for:
 - Communicating the requirements of the CEMP to any sub-contractors;
 - Liaising with all project team members on environmental issues;
 - Maintaining an up-to-date register of legislation and meeting legislative requirements; and
 - Maintaining a register of actions carried out.
- 2.2.4 The Principal Contractor will be required to evaluate aspects of the construction phases and impacts on a continual basis and these will be deemed significant if;
 - They breach legislative or contractual compliance;
 - The impact could cause a prolonged or long-term nuisance or environmental impact during the contract period;
 - The impact could have a long-term effect to the environment outside of the footprint of the works; or,
 - The impact could adversely impact the flora and fauna within the footprint of the proposed works and adjacent areas.
- 2.2.5 The Principal Contractor will identify where works have the potential to result in environmental impacts and where necessary will undertake risk assessments of the individual aspects of the construction work to fully evaluate the risks. Where risks are identified appropriate mitigation measures will be identified and detailed within the CEMP will be updated to include details on these measures.
- 2.2.6 The Project Manager must report incidents in line with Sellafield Ltd environmental incidents reporting system.

Sub-Contractors

2.2.7 All contractors are responsible for leading the work of their particular discipline on the project. They are responsible for ensuring that the requirements of the CEMP are briefed out to all site workers.



3.0 Additional Requirements

- 3.1.1 Specific Management Plans will be prepared in association with any specific works or requirements.

 These Management Plans will reflect any legislative requirements and will be agreed with Sellafield

 Ltd and where necessary the relevant competent authorities (Copeland Borough Council, Cumbria

 County Council) will be notified in advance of works commencing.
- 3.1.2 These may include (examples provided below):
 - Health and Safety Plan
 - Fuelling Procedure
 - Emergency Response Plan (including spills)
 - Traffic Management Plan
 - Waste Management Plan
 - Water Quality Management Plan
- 3.1.3 Site permits will include waste clearance, discharge/conformance for liquid effluents.



4.0 Consents & Permissions

4.1 Background Requirement for Environmental Compliance

4.1.1 The Principal contractor and all sub contractors will be required to comply with Sellafield Ltd approach to environmental management for the Site, which is defined in this CEMP.

4.2 Compliance with Environmental Legislation, Code of Practice and Best Practice

4.2.1 The Principal contractor will also be required to identify and comply with all relevant environmental legislation and other requirements, such as Codes of Practice and industry best practice guidelines.

4.3 Requirements for Environmental Permits

- 4.3.1 Consents may be required for some of the proposed works. It is the responsibility of the Principal contractor to undertake any consultations with statutory or non-statutory consultees.
- 4.3.2 Potentially, a number of consents and licenses may be required in relation to the proposed works. These may include:
 - Temporary/permanent discharge Consent is likely to be required by the Environment Agency
 if temporary, new or altered permanent discharge consents are to be made to the sewerage
 system or watercourse.
- 4.3.3 A full register of required consents would be gathered as soon as possible by the Principal contractor, following consultation with the relevant statutory and non-statutory bodies.

Environmental Permitting Regime

4.3.4 The Pollution Prevention and Control Act 1999 builds a more integrated approach to controlling pollution from industrial sources, aiming to achieve a high level of protection of the environment by preventing or reducing emissions into the air, water and land.



- 4.3.5 Under the regulations, discharges of polluting substances to ground and surface waters (discharge consents) are also covered by Environmental Permits. Only domestic/foul water will go to the foul drains, any trade effluent will go to the provided drainage system on site, but this will be in line with Discharge authorisation or conformance documentation which will be managed locally through the Sellafield Ltd Utilities Discharge Control Manager.
- 4.3.6 It is also likely that a Water Discharge Activity Permit will be required.
- 4.3.7 It is the responsibility of the Principal contractor to ascertain the need, and obtain as required, permits and consents for all construction activities during the works stages.
- 4.3.8 The general strategy which will be adopted in determining the need for an Environmental Permit from the regulatory authorities will consider:
 - The scope of the works;
 - Identify the potential impacts of the remediation/construction works;
 - Assess whether a permit and/or consent is required for the remediation/construction works themselves or is necessary to facilitate their execution;
 - Identify the specific items for which the Environmental Permit(s) and or consent(s) are required; and
 - Assess the timescale necessary to obtain the identified permit(s) and incorporate this into the project's programme.
- 4.3.9 Where formal permits are required from statutory bodies these will be applied for through Sellafield Ltd.



5.0 Key Contact Details

5.1.1 Whilst the purpose of this document is to ensure that construction practices are carried out in a responsible manner to prevent or minimise the potential effects on the environment, there is still a chance that incidents can occur. The list below provides the details for some of the key departments which may need contacting in the event of an incident occurring.

Nuclear Decommissioning Authority - 01925 802077

Environmental Agency – Incident Hotline – 0800 807060

Natural England - 0300 060 3900

Copeland Borough Council – 01946 598300



6.0 Training, Awareness, Competence and Communication

- 6.1.1 Training, awareness and competence are an essential component of environmental management on construction sites. The training procedure shall be developed by the Principal Contractor at subsequent stages. It is expected that this will address:
 - Site induction training;
 - Specialist environmental training (e.g. spill response); and
 - Toolbox talks.
- 6.1.2 Good relations with current site users and people living and working in the vicinity of site operations are of paramount importance. Early establishment and maintenance of these relations throughout the carrying out of site operations will go some way towards minimising potential disruption to neighbours. Therefore, current site users and local residents located within proximity to the works should be notified of the works if they are considered likely to be affected.
- 6.1.3 This should include a summary of the phasing/timing of the works, details of the proposed operating hours and confirmation of the measures being implemented to minimise noise. In addition, a contact telephone number should be provided in the event of complaints from the public and a procedure adopted to respond to such complaints.
- 6.1.4 External Communication with outside parties (other than requests for information from statutory bodies, e.g. relevant Local Authority and the Environment Agency) is the responsibility of The Principal Contractor. A Communication Plan should be developed. This plan should:
 - Identify key consultees / bodies (relevant local authority) with whom communication on environmental issues is required;
 - Identify the responsibilities for communication;
 - Identify the issue around which consultation/communication is required; and
 - Identify the stage at which consultation is required.
- 6.1.5 Any liaison with statutory consultees will be done via Sellafield Ltd.



<u>List of Communications – Table to be populated during the project</u>

Organisation	Issues Requiring Consultation	Lead Responsibility	Action To Be Undertaken	Completion Date	Sign off

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7.0 Procedure for Management, Emergency and Incident Reporting

7.1 Emergency and Incident Reporting

- 7.1.1 The Principal Contractor shall have procedures in place to deal with incidents involving environmental issues relating to site works.
- 7.1.2 All incidents shall be recorded and reported to the Principal Contractor's Project Manager through the Atlas system as soon as practicable and at least within 12 hours of the incident occurring, and if appropriate, will be escalated to the Environment Agency. A follow-up report shall also be produced providing details of all relevant information.
- 7.1.3 Environmental incidents shall be reported to the Sellafield Ltd and the Statutory Authorities as required. The following should be adhered to;

'When reporting an incident, the following information must be included (when reporting out of hours, only brief personal/incident details should be left on the answer phone service and the remainder captured during normal working hours):

- Name, job title and contact telephone number of the manager/person reporting;
- Operational Depot/Business Department/Directorate;
- The name of the operative involved in the accident or incident;
- Employee status: Sellafield Ltd direct labour or contact labour (contractor company name);
- Operative job title and the type of work activity being undertaken at the time of the incident;
- The relevant Sellafield Ltd Manager/First Line Report;
- The date and time of when the incident occurred;
- A brief factual description of what happened (do not speculate or make assumptions). For security related incidents, this should include any items stolen (with an estimate of the cost), crime reference numbers and police details.
- Details of actions already taken to safeguard individuals.



- 7.1.4 A follow-up report should also be produced providing details of all relevant information. The Principal Contractor must have an accidental Emergency Plan in place and the persons responsible must be contacted in the event of any significant spillage. [Emergency Response Plan to be completed]
- 7.1.5 The Principal Contractor shall report the discovery of deleterious materials, for example, asbestos, fuel oils, etc. to the Project Manager after testing by an appropriate accredited laboratory. All hazardous discoveries shall be entered into the method statements for the relevant project.

 Attention must also be drawn to any specific Sellafield Ltd or Statutory Authority requirements, which may detail actions to be taken.

7.2 Environmental Auditing

- 7.2.1 As part of the contract with Sellafield Ltd it is understood that auditing will be necessary to;
 - Determine conformance with the CEMP;
 - Ensure the CEMP is properly implemented and maintained; and,
 - Determine the extent to which the requirements defined in management plans and environmental procedures have been met.
- 7.2.2 Internal audits will be undertaken on a regular basis. These audits will focus on site and task specific activities such as erosion and sediment controls, refuelling procedures and high-risk remediation/construction activities to ensure all controls and methodologies are being implemented as required.
- 7.2.3 Audits of the Project will also be undertaken by Sellafield Ltd. To provide an unbiased view the Project and identify issues which may be overlooked by those who are working on the Project on a daily basis.
- 7.2.4 The Project Manager will be responsible for ensuring that all non-conformances identified in an audit are closed out in a timely fashion as per the auditor's recommendations.
- 7.2.5 Results of the audits will be reported back to the Project team through a variety of mechanisms including site toolbox meetings and construction meetings.



Corrective Action

- 7.2.6 Corrective action is required on the basis of the occurrence of substandard performance being observed or experienced, resulting in an actual or potential environmental complaint, incident or emergency.
- 7.2.7 Substandard performance will be measured by resulting actions i.e. complaints, incidents and emergencies, and compliance with the CEMP, resource consents, designations and operational procedures. Where failure to comply with these requirements occurs the responsible on-site personnel will be issued with a Non-Compliance Report (NCR).
- 7.2.8 The NCR is to contain the corrective actions required to be completed by the on-site personnel to either minimise, isolate or eliminate the potential future environmental effects and non-compliance with the site requirements. A NCR can also be used in a proactive situation by on-site personnel where current operational procedures or the CEMP do not cover newly identified significant environmental aspects. On-site personnel are responsible for the identification and reporting of non-compliances and the usage of NCRs.
- 7.2.9 Predominantly NCRs will be issued after investigations and inquiries as follow up for environmental complaints, incidents and emergencies.

Environmental Reporting

- 7.2.10 The Project's overall environmental performance will be reviewed. The following applies:
 - The Project Manager is responsible for ensuring all relevant documentation is submitted and maintained within the Project filing and document control system.
 - Applicable documentation will include but not be limited to:
 - o all incidents reports and investigation outcomes;
 - weekly and fortnightly environmental checklists and report files;
 - formal and informal audit and environmental monitoring reports including NCR reports, and any laboratory analysis;
 - records of environmental training;
 - o chain of custody records; and



- o minutes of meetings.
- 7.2.11 The following reports will provide a record of compliance with the resource consents and designations:
 - The Project Manager will produce a weekly report on the status of site environmental matters;
 - In addition to their weekly checklists, sub-contractors will report monthly to the Project Manager about environmental issues and the overall status of the CEMP and regulatory compliance;
 - The Project Manager is required to report quarterly to Sellafield Ltd on the status of site environmental matters;
 - Further, should any member of the Project team become aware of an environmental incident or hazard that is causing - or has the potential to cause environmental harm - that person must advise their immediate supervisor who will notify the Project Manager, and an incident report will be completed;
 - The Project Manager will be responsible for ensuring that all statutory reporting required by the consents and designations are undertaken.



8.0 Construction Working Hours

8.1 Recommended Working Hours

- 8.1.1 The project will work to a set of core construction working hours which will be subject to any specific planning conditions. Again, subject to specific planning conditions, there may be exceptions to the core working hours, such as the following:
 - Deliveries of construction materials or removal of demolition or site clearance materials will be scheduled to avoid peak traffic flows.
 - A period of one hour before and up to one hour after core working hours may be used for start-up and close down activities.
 - Certain equipment may require abnormal load assessment. In the event these are needed, the
 delivery timeframe will be scheduled potentially at different times to normal traffic to minimise
 disruption, along the haulage route and will be agreed in advance via liaison and discussion
 with appropriate groups (e.g. highways agencies).
 - Work required in response to an emergency and/or an unplanned event.
 - Works which cause noise that is audible beyond the boundary of Sellafield.



9.0 Control of Noise and Vibration

9.1 Requirement

9.1.1 In order to minimise the potential impact to noise and vibration on current site workers, local residents and other sensitive receptors the following mitigation measures will be adopted by The Principal Contractor.

9.2 Relevant Legislation and Policy

- 9.2.1 Any noise or vibration related work needs to adhere to the following environmental legislation;
 - Control of Pollution Act 1974;
 - Pollution Prevention and Control Act 1999; and,
 - The Control of Noise at Work Regulations 2005.
- 9.2.2 The construction works need to adhere to the following noise and vibration guidance;
 - Environmental good practice on site, CIRIA C741, 2015; and,
 - Pollution Prevention Control (EPR-PPC) permit (Sellafield)

9.3 Construction Noise

- 9.3.1 Whilst there is potential noise and vibration impacts associated with the construction works it is not anticipated that any consent of approval from the Local Planning Authority under Section 61 of the Control of Pollution Act 1974 will be required.
- 9.3.2 However the following mitigation will include 'Best Practicable Means' and the guidance provided within British Standard BS:5228:2009+A1:2014 Noise and Vibration Control on construction and open sites outlines a range of measures which can be used to reduce the impact of construction phase noise on the nearest noise sensitive receptors. These measures will be applied by the contractor where appropriate during the construction phase of the proposed development, and will include;
 - No deliveries (materials or plant) will occur outside of the hours identified in Section 8;
 - Careful selection of working methods and programme;



- Where applicable, selection of quietest plant and machinery to undertake the necessary works;
- Ensuring that regularly maintained and appropriately silenced equipment is used;
- All major compressors should be sound reduced models fitted with properly lined and sealed acoustic covers which should be kept closed whenever the machines are in use;
- Machines in intermittent use will be shut down in the intervening period;
- Where practicable or necessary, positioning equipment behind physical barriers, i.e. existing features, hoarding etc;
- Whilst in operation plant and equipment liable to create noise will be located away from sensitive receptors as far as practicable;
- Handling all materials in a manner which minimises noise, such as minimising drop heights;
- Switching all audible warning systems to the minimum setting required by the Health and Safety Executive. Reverse warning alarms should be fitted with white noise (broadband) systems;
- Where processes could give rise to significant levels of noise for extended periods of time, noise
 levels will be monitored regularly by a suitably qualified person with the survey results kept on
 file; and,
- In terms of on-site employees, appropriate actions will be undertaken with regard to the Noise at Work Regulations including the requirement for the use of ear defenders and appropriate warning notices.
- 9.3.3 Further to the above, operatives should be trained to employ appropriate techniques to keep site noise to a minimum and should be effectively supervised to ensure that best working practice in respect of noise reduction is followed. All employees should be advised regularly of the following, as part of their training:
 - The proper use and maintenance of tools and equipment;
 - The positioning of machinery on site to reduce the emission of noise to existing site personnel or the wider community;
 - Ancillary plant such as generators, compressors and pumps should be placed behind existing
 physical barriers, and the direction of noise emissions from plant including exhausts or engines
 should be placed away from sensitive locations, in order to cause minimum noise disturbance. If
 necessary, acoustic barriers or enclosures should be utilised around noisy plant and equipment;



- All major compressors should be 'sound reduced' models fitted with properly lined and sealed acoustic covers which should be kept closed whenever the machines are in use;
- Any ancillary pneumatic percussive tools should be fitted with mufflers or silencers of the type recommended by the manufacturers;
- Machines in intermittent use should be shut down in the intervening periods between work;
- The avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment;
- The protection of persons against noise; and
- The operation of sound measuring equipment (selected personnel).

9.4 Toolbox Talks

9.4.1 The Principal Contractor will provide a toolbox talk on methods to reduce the effects of noise and vibration on construction workers, existing site users and local sensitive receptors.

9.5 Monitoring of Complaints

- 9.5.1 Whilst monitoring is not considered to be required, as part of the Environmental Permitting Regulations in relation to the Pollution Prevention Control (EPR-PPC) permit for the Sellafield Site, Sellafield Ltd has a noise monitoring programme, with the Environment Agency as the regulator regarding this Permit. In any instances whereby the construction phase is considered to be generating elevated noise levels the onsite Occupational Hygienist, qualified in assessing environmental noise, building acoustics and workplace noise would be requested to attend the site and undertake a noise survey. In addition, access to the site would be facilitated at all reasonable times for inspection and/ or noise measurements by the Local Authority environmental health personnel, following appropriate site specific induction, security induction and/ or health and safety training.
- 9.5.2 In order to minimise the likelihood of complaints, the Local Planning Authority and current site occupants and affected residents should be kept informed of the works to be carried out if they are likely to be affected or if any works need to occur outside of normal hours.
- 9.5.3 In the event that complaints for noise nuisance are received by any of the local authorities The Principal Contractor must, unless otherwise agreed with the relevant local authority, at its own



expense, employ a consultant approved by the relevant planning authority to carry out an assessment of noise from these activities.



10.0 Control of Dust and Other Emissions

10.1 Requirement

10.1.1 In order to minimise the potential impact to air quality through the generation of dust and emissions, the following mitigation measures will be adopted by the Principal Contractor

10.2 Relevant Legislation and Policy

- 10.2.1 Any works likely to generate dust or emissions needs to adhere to the following environmental legislation;
 - Clean Air Act 1993; and,
 - Pollution Prevention and Control Act 1999.
- 10.2.2 The construction works need to adhere to the following air pollution guidance;
 - Environmental Good Practice on site, CIRIA C741, 2015;
 - Pollution Prevention Control (EPR-PPC) permit

10.3 Air Quality and Climate

- 10.3.1 During construction works, there is the potential for emissions of dust which could affect sensitive receptors in the vicinity such as the River Calder and areas of scrub and woodland in close proximity to the work area.
- 10.3.2 The main sources of these impacts occurring are likely to be:
 - Physical disturbance of the land surface and soil stripping;
 - Disturbance from interaction of HGV movement over soil;
 - Haulage and light traffic on unsealed surfaces/working areas; and,
 - Wind erosion of exposed surfaces including any stockpile and unsealed surfaces/working areas.
- 10.3.3 Given the location of the proposed development it is expected that there could be potential effects on current site users, but a more limited impact on existing residential properties and areas of ecological sensitivity, however, a series of measures to further reduce the potential effects are provided below in Section 10.4.



10.4 Generation of Dust by Construction Traffic/Plant

- 10.4.1 Dust suppression measures shall be adopted during construction. The effective adoption of these procedures will ensure that there is no significant detrimental impact on existing site users or ecologically sensitive receptors as a consequence of the proposed development.
- 10.4.2 In order to prevent dust nuisance, particularly during dry and windy weather, the Principal Contractor shall ensure that there will be adequate screening and damping down during all excavation works, clearance works and other site preparations (including storage of construction materials), together with the following measures detailed below.
 - Carry out regular inspections to ensure compliance with this CEMP and record results in the site logbook. Increase the frequency of inspections during activities with a high potential to create dust or in prolonged dry weather.
 - Undertake daily on and off-site visual inspections where there are nearby receptors ensuring that no excessive dust emissions and/or deposition during works.

Construction Traffic

- 10.4.3 Given the nature of the works, the construction works will involve the regular use of construction vehicles and HGV's. As such it is imperative that measures are put in place to minimise the dust generated by vehicular movements. These measures are outlined below.
 - Vehicular movements on the construction site will be limited to speeds not exceeding 10mph on site roads and 5mph on unsurfaced areas. This speed will limit the potential for dust dispersion and entrainment as well as reduce the potential for accidents on the site. Signposts indicating these speed limits will be provided.
 - Wheel wash facilities will be provided at all site access points to ensure that vehicles are appropriately cleaned prior to accessing the internal highways. The type of wheel washing facilities should be appropriate to the types of vehicles being used on the site and the amount of mud and debris likely to be on the vehicles. However, as a minimum the wheel washing facilities should comprise a manually operated high pressure jet wash with an appropriate settlement area to allow silty water to run off and sediment to settle.
 - Wheel wash areas should be contained and appropriately disposed of to prevent suspended solids or contaminated waters from entering any nearby water courses or drains. The disposal of this water will be undertaken in accordance with relevant Sellafield Ltd Practices and it will be



necessary to obtain the consent of the EA to discharge into the foul sewers, or if the water contains contaminants such as oil or fuel it will need to disposed of as controlled waste.

- All vehicles leaving the site will be subject to a visual inspection before accessing the internal highways to ensure that the level of dust/mud/debris on the vehicles has been minimised insofar as is practical.
- It will be the responsibility of The Principal Contractor to undertake a daily inspection of the
 adjoining highways and deploy road sweepers if mud and debris is likely to be deposited on the
 main roads.
- Use water-assisted dust sweepers to clean internal and where necessary local roads.
- Avoid dry sweeping of large areas.
- Vehicles shall be sheeted to prevent loss of materials off site.

Construction Techniques and Plant Use

- Storage locations will be aggregated where practical to avoid the creation of many stockpiles, adequately screened to prevent wind loss and damped down where practical when being handled.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression /mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes, conveyors and covered skips. Minimise drop heights of materials.
- Ensure aggregates are stored in bunded areas and are not allowed to dry out.

Waste Management

- No bonfires and burning of waste materials on site
- Ensure use of covered skips as appropriate Wastes must be placed in suitable containers prior to appropriate disposal.
- Any waste stockpiles will be damped down by water sprays and sheeted if required.
- All rubbish skips will be exchanged on a regular basis and sheeted when required.



10.5 Generation of Emissions by Construction Traffic and Plant

10.5.1 The following mitigation measures have been identified to mitigate for potential air quality impacts in relation to construction emissions:

Construction Traffic

- The potential for NO₂ concentrations to be impacted by construction vehicles is considered negligible and therefore mitigation is not required.
- Implementation of a Traffic Management Plan (TMP). This will outline measures to minimise any offsite congestion and queuing, reduce distances of deliveries and eliminate unnecessary loads.
- Reducing the idle times by providing an efficient material handling plan that minimises the
 waiting time for loads and unloads. Reducing idle times could save up to 10% of total emissions
 during construction phase.
- Implement toolbox talks and include driver training to ensure engines and plant are turned off
 when not in use for more than five minutes. This restriction will be enforced strictly unless the
 idle function is necessary for security or functionality reasons.
- Technical inspection of vehicles to ensure they will perform the most efficiently. Lorries and plant with diesel engines on or off site will be well maintained in order to reduce emissions of visible smoke.
- Vehicles will use low-emission fuels where practicable.
- Vehicles with low exhaust emissions (e.g. with particle traps) and emission controls such as catalysts or diesel particle filters will be used.
- These measures will be promoted through the implementation of tool box talks and driver training.

Construction Techniques and Plant Use

- Site machinery will use low-emission fuels where practicable.
- Site vehicles with low exhaust emissions (e.g. with particle traps) and emission controls such as catalysts or diesel particle filters will be used.
- Regular maintenance of plant and equipment.
- Mobile plant will be located away from sensitive receptors near to the proposed development Site.



 Contractors will take all precautions to prevent the emissions of fumes from stored fuel oils, for safety and potential nuisance reasons.

10.6 Toolbox Talks

10.6.1 A toolbox talk will be delivered to contractors in respect to potential dust and other emissions effects.

10.7 Monitoring and Communications Recommendations:

- 10.7.1 The following monitoring recommendations will be adhered to by The Principal Contractor.
 - Record all dust and air quality complaints and record outcomes.
 - Consult with and advise any current site users or adjacent landowners if there is the potential to be impacted by temporary construction dust emission prior to starting of those activities.
 - Make the complaints log available to the local authority when asked.
 - Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
 - Records of dust and air quality complaints shall be kept, including likely causes and mitigation measures to reduce impacts if appropriate;
 - Daily on-site and off-site visual inspections shall be undertaken and recorded;
 - Notify existing site users and local community of works hours if any specific works which are likely to generate higher levels of dust/emissions;
 - Notify local community of appropriate details to make complaints if necessary; and
 - Inspections will be increased during dry and windy weather and/or during periods of high activity (vehicular or earthworks) which is likely to increase sources of dust and emissions.



11.0 Water Management

11.1 Requirement

11.1.1 To ensure water management is to implement method to protect surface and groundwater from pollution or other adverse impacts including change of flow volume, water levels and water quality.

11.2 Relevant Legislation and Policy

- 11.2.1 Any works which have the potential to affect water resources (either ground or surface) needs to adhere to the following environmental legislation;
 - Water Act 2014;
 - Flood and Water Management Act 2010; and,
 - Land Drainage Act 1991.
- 11.2.2 The construction works need to adhere to the following water pollution guidance;
 - Environmental Good Practice on site, CIRIA C741, 2015;
 - Control of water pollution from construction sites, CIRIA C532 2001.
 - A Water Discharge Activity Permit (EA) may be required and local Discharge Authorisation and or effluent conformance document via the SL utilities Discharge Controls Manager.

11.3 Surface Waters

- 11.3.1 The following potential construction impacts in relation to surface waters were identified at the construction phase;
 - Temporary impacts on surface waters will occur during construction. Pollution from mobilised suspended solids (silt), suspended sediment due to run off from stripped construction areas and excavations can have a severe negative impact on water quality, water dependant habitats and aquatic ecology. This is particularly true in sloping areas with underlying impermeable strata following topsoil stripping. In areas of moderate to high rainfall, the potential problems are clearly exacerbated. If allowed to enter surface watercourses this run off can give rise to high suspended solids.
- 11.3.2 The following mitigation measures are recommended:



- Mitigation and control measures to address the impact from suspended sediments associated
 with construction activities will follow good work practices and sound design principals.
 Contractors shall establish contact with the relevant authorities, e.g. DEFRA and EA before
 works commence, with ongoing liaison throughout the construction. Contractors shall be familiar
 with the requirements of best practice and relevant guidelines as outlined in section 11.2;
- Preparation of an Emergency Response Plan detailing actions to be taken in the event of an
 accidental spillage of fuel, chemicals or other hazardous material. The Plan will detail the
 procedures to be followed if there is a breach in any license conditions or a non-compliance. It
 will be important to ensure that the Project Manager is notified of all incidents where there has
 been a breach in agreed environmental management procedures.
- Works to be conducted in, near or liable to affect any waterway should be the subject of a
 construction method statement. The guidance suggests that works near to a waterway are
 within 10 metres. The different work activities proposed in the vicinity of the water courses will
 be subject to a detailed method statement, prepared under the CEMP.
- The CEMP will use a permit to pump, permit to dig and permit to refuel system which will ensure
 the appropriately trained personnel undertake these tasks in a manner that has been agreed in
 advance of the works with the Project Manager to ensure these activities do not impact on water
 quality.

11.4 Drainage and water supply

- 11.4.1 All drainage affected or disturbed by works associated with the construction of this project will be identified and reinstated quickly and properly. Damage by flooding as a result of the works, will be rectified and/or compensated.
- 11.4.2 Any disruption to water supply will be reinstated immediately by the Contractor or an alternative source supplied until the source is reinstated.

11.5 Storage of Fuel, Oil and Other Chemicals

- 11.5.1 The following potential construction impacts in relation to materials, fuels, oils and chemicals were identified at the construction phase;
 - Construction of the proposed development will involve the use of plant and machinery as well as
 the associated temporary storage of construction materials, oils, fuels and chemicals in
 designated areas within the application site and on suitably mobile bowser on the working



spread. There is the potential for spillage or release of fuel oil and other dangerous substances which could impact on the surface and ground water bodies associated with the working area. It is also possible that small residue amounts left on site may be mobilised by surface run-off and washed into the receiving waterbodies.

- 11.5.2 In order to minimise the potential impact effect of storage of fuel, oil and chemicals the following mitigation measures should be adopted by The Principal Contractor.
- 11.5.3 During the construction phase of the project there will be a requirement to store fuels, oils and other chemicals in order to run and maintain various plant and equipment. If not stored and treated correctly these products have the potential to result in pollution events which can be detrimental to a number of environmental receptors including soils, ground water, surface water, water courses, and both flora and fauna. The following recommendations will need to be adhered to ensure that the likelihood of potential pollution events are limited insofar as possible;
 - A site drainage plan will be kept in a readily accessible location, showing the location of both foul water drains and surface water drains.
 - Fuels, oils, greases and hydraulic liquids will be stored within enclosed/bunded areas and as far as possible from drainage ditches, surface water drains and watercourses. These bunds will be designed to provide for 110% storage volume for all tanks storing petroleum products).
 - Oil/fuel storage facilities will be located at least 10m from and watercourse, open drains, gullies, unsurfaced areas or porous surfaces and at least 50m away from a borehole, spring or well.
 - They will also be stored at least 2m from any building if the tank contains less than 3,500 litres and at least 6m from any building if greater than 3,500 litres.
 - Waste fuels and materials will be stored in designated areas that are isolated from surface water drains or open waters. Skips will be closed or covered to prevent materials being blown or washed away and to reduce the likelihood of contaminated water leakage. Hazardous wastes such as waste oil, chemicals and preservatives, will be stored in sealed containers and kept separate from other waste materials while awaiting collection by a registered waste carrier. Fuelling, lubrication and storage areas and site offices will not be located within 10m of surface water features and fuelling operations within the site compound shall be subject to strict controls, with only appropriately trained personnel permitted to undertake refuelling activities under a permit to refuel system.
 - Suitable facilities (e.g. drip trays, drum trolleys, funnels etc) must be provided and maintained;



- Fuel interceptor tanks will be installed at the main re-fuelling location within the Main Compound to treat any runoff.
- All valves and trigger guns should be protected from unauthorised interference and should be turned off and securely locked when not in use. Any tanks or drums should be stored in a secure container or compound, which should be kept locked when not in use. Bowsers should be stored within site compounds when not in operation.
- The risk of spilling fuel is at its greatest during refuelling of plant. A permit to refuel system will be employed throughout the project to ensure the appropriately trained people and equipment is being used during refuelling activities. The refuel of mobile plant, will be undertaken well away from any drains or water bodies. A spill kit will be available at all times and a bowser with secondary containment will be used. Vehicles will not be left unattended during refuelling nor will a delivery valve be jammed opened. Hoses and valves will be regularly checked for wear, and turned off and securely locked when not in use. Diesel pumps and similar equipment will be placed on drip trays or similar to collect minor spillages or leaks. These will be checked regularly and any accumulated oil removed for appropriate disposal.
- The Contractor will be required to keep sufficient spill kits on site at all times so that one can be deployed to any part of the construction site within 15 minutes;
- Pollution prevention equipment will be kept in the construction area and procedures for use put in place;
- Construction vehicles will only be active when required and will be regularly maintained to reduce the risk of leakage or spillage. Maintenance work will be carried out off-site or on impervious drip trays of sufficient capacity to prevent spillage of fuel and oil;
- Provision will be made to remove any suspended sediments in surface water runoff during excavation and construction works before entering any off-site watercourse/drainage system.
- All waste containers (including all ancillary equipment such as vent pipes and refuelling hoses) will be stored within a secondary containment system (e.g. a bund for static tanks or a drip tray for mobile stores and drums). The bunds will be capable of storing 110% of the tank capacity. Where more than one tank is stored, the bund must be capable of holding 110% of the largest tank or 25% of the aggregate capacity (whichever is greater). Drip trays used for drum storage must be capable of holding at least 25% of the drum capacity. Where more than one drum is stored the drip tray must be capable of holding 25% of the aggregate capacity of the drums stored. Drainage of bunded areas shall be diverted for collection and safe disposal off site by an appropriately licensed contractor.



- On the working spread, refuelling of construction vehicles and addition of hydraulic oils or lubricants to vehicles will be undertaken in accordance with the Control of Pollution (Oil Storage) Regulations 2001.
- A pollution prevention plan will be implemented at commencement of the works.
- Weekly and where necessary, daily inspections and maintenance of the above measures will be carried out to ensure that they are maintained in a satisfactory condition and discharges will be monitored prior to discharge.
- 11.5.4 The proposed area for fuel/chemical storage will be located within the contractor's compound.
- 11.5.5 The Principal Contractor will be required to develop detailed method statements for key aspects of work which have a potential for environmental impact. These will encompass proposals for the control of pollution, together with emergency response plans. The Principal Contractor will be required to observe and adhere to relevant legislation and guidelines.
- 11.5.6 Any deleterious material, not previously identified, shall immediately be reported to the Client's Project Manager.
- 11.5.7 Regular visual inspections and monitoring of nearby water courses shall be undertaken during the construction phase to provide an early indication of any potential contamination releases to controlled waters.

11.6 Toolbox Talks

11.6.1 The Principal Contractor will provide a tool box talk on methods to reduce the effects on water quality to both construction workers and local receptors.



12.0 Soils, Materials and Aggregates

12.1 Requirement:

12.1.1 This section specifically deals with requirements for the stripping of soils, and the stockpiling and storage of soils, materials and aggregates.

12.2 Relevant Legislation and Policy

- 12.2.1 Any works which have the potential to affect soils needs to adhere to the following environmental legislation;
 - Controlled Waste Regulations 2012.
- 12.2.2 The construction works need to adhere to the following guidance;
 - Environmental Good Practice on site, CIRIA C174, 2015;

12.3 Soils

Recommendations:

- 12.3.1 The ground conditions will be fully established and understood prior to works commencing and the following mitigation will be adhered to;
 - Prepare a Soil Resource Plan showing the areas and type soil to be stripped, indicating haul routes and working areas, the methods to be used, and the location, type and management of each soil stockpile;
 - When stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction;
 - Any waste material will be stored according to local Sellafield Ltd procedures, as advised by the Plant Solid Waste Co-ordinator / Waste Advisor.
 - Confine traffic movement to designated routes;
 - Keep soil storage periods as short as possible;
 - Clearly define stockpiles of different soil materials.



12.4 Stockpiling

12.4.1 A detailed audit trail will be kept of all soil materials being retained and where reuse is required it will follow appropriate CL:AIRE procedure. These soils to be retained will be stored separately from other soils from the site and any involved in the construction process.

Stockpile Heights;

- 12.4.2 The size and height of the stockpile will depend on several factors, including the amount of space available, the nature and composition of the soil, the prevailing weather conditions at the time of stripping. Stockpile heights of 3-4m are commonly used for topsoil that can be stripped and stockpiled in a dry state but heights may need to be greater where storage space is limited.
- 12.4.3 Soil moisture and soil consistency (plastic or non-plastic) are major factors when deciding on the size and height of the stockpile, and the method of formation. As a general rule, if the soil is dry (e.g. drier than the plastic limit) when it goes into the stockpile, the vast majority of it will remain dry during storage, and thereby enable dry soil to be excavated and respread at the end of the storage period. Soil in a dry and non-plastic state is less prone to compaction, tends to retain a proportion of its structure, will respread easily. Any anaerobic soil also usually becomes re-aerated in a matter of days.
- 12.4.4 Soil stockpiled wet or when plastic in consistency is easily compacted by the weight of soil above it and from the machinery handling it. In a compacted state, soil in the core of the stockpile remains wet and anaerobic for the duration of the storage period, is difficult to handle and respread and does not usually break down into a suitable tilth. A period of further drying and cultivation is then required before the soil becomes re-aerated and acceptable for respreading.
- 12.4.5 If stockpiles are stored for any length of time, the project design engineer for the construction works as part of their remit they will survey the stockpiles and material storage every 2 months and record the information on a CAD drawing. They will also be responsible throughout the construction process for supervising and ensuring that the contractors team adhere to the plans.

Stockpile location and stability

12.4.6 Stockpiles will not be positioned within the root or crown spread of trees, or adjacent to ditches, watercourses or existing or future excavations. Soil will have a natural angle of repose of up to 40° depending on texture and moisture content but, if stable stockpiles are to be formed, slope angles



will normally need to be less than that. For stockpiles that are to be grass seeded and maintained, a maximum side slope of 1 in 2 (25°) is appropriate.

Stockpile protection and maintenance

- 12.4.7 Once the stockpile has been completed the area will be appropriately secured to prevent any disturbance or contamination by other construction activities. If the soil is to be stockpiled for more than six months, the surface of the stockpiles will be seeded with a grass/clover mix to minimise soil erosion and to help reduce infestation by nuisance weeds that might spread seed onto adjacent land.
- 12.4.8 Management of weeds that do appear will be undertaken during the summer months, either by spraying to kill them or by mowing or strimming to prevent their seeds being shed.

12.5 Materials and Aggregates

- 12.5.1 If a number of materials including aggregates and spoil are used/produced, these will require appropriate storage. Any storage will be compliant with the following;
 - Storage facilities for solid material must prevent both deterioration of the materials and their escape;
 - Ensure all materials are contained within their storage boundaries i.e. three-sided bays, in skips or surrounded by barriers;
 - Where appropriate, loose materials will be covered to prevent dust or leachate leaving the storage area;
 - Ensure that spoil intended for re-use remains clean and uncontaminated.

12.6 Deliveries and Dispensing

- 12.6.1 Guidance for the procedures for deliveries and dispensing which will be adhered to, this includes;
 - Ensuring that site specific procedures are in place for bulk deliveries;
 - Delivery points and routes will be clearly marked;
 - Suitable facilities (e.g. drip trays, drum trolleys, funnels etc) must be provided and maintained;
 - Stocks will be kept to a minimum and periodically checked for out of date items.



13.0 Construction Vehicle Parking Details

13.1 Requirement:

13.1.1 In order to minimise the potential effects of vehicle parking the following mitigation measures will be adopted by The Principal Contractor.

13.2 On Site Parking

- 13.2.1 The Principal Contractor will provide a dedicated parking area, clearly demarking areas for visitors and site operatives.
- 13.2.2 The Principal Contractor will operate a traffic management system across relevant parts of the site, which is relayed to all personnel during induction.
- 13.2.3 Deliveries will report to the Main Gate first and then the site office and all delivery drivers will sign in and out on completion of delivery.
- 13.2.4 Banksmen will be present during reversing operations, where operator's view is obscured. Flashing beacons will be fitted to all on site vehicles and plant.
- 13.2.5 Plant is to be fitted with traverse alarms to ensure safe manoeuvring.



14.0 Construction Traffic Access

14.1 Requirement

14.1.1 In order to minimise the potential impact effect of construction traffic on the existing site users and users of the wider road network the following mitigation measures will be adopted by The Principal Contractor.

14.2 Construction Traffic

- 14.2.1 Vehicle Movements will be in line with Site operating hours as outlined in section 8.
- 14.2.2 Deliveries will report to the Main Gate and then the site office and all delivery drivers will sign in and out on completion of delivery, with all plant and material loaded and unloaded under the supervision of an appointed banksman.
- 14.2.3 At entry points to the working area from the internal site roads, a run of clean stone will be installed and the road itself will be maintained regularly with road sweepers. This is to reduce the exportation of mud onto the local road network and the generation of dust.)
- 14.2.4 The Principal Contractor will agree details of partial temporary road closures with the relevant local authority.



15.0 Cleanliness of Highways

15.1 Requirement

15.1.1 In order to maintain the cleanliness of internal highways and the wider road network these measures will be adopted by The Principal Contractor.

15.2 Recommendations

- 15.2.1 Recommendations for suppression of dust and dirt are also covered in Section 10 however, a summary of these measures are also provided below.
 - Wheel wash facilities will be provided at all access points of the working areas initially
 comprising of a manually operated high pressure jet wash with an appropriate settlement area
 to allow silty water to run off and sediment to settle.
 - Wheel wash areas will be contained and appropriately disposed of to prevent suspended solids
 or contaminated waters from entering any nearby water courses or drains. To dispose of this
 water it will be necessary to obtain the consent of the EA to discharge into the foul sewers, or if
 the water contains contaminants such as oil or fuel it will need to disposed of as controlled
 waste.
 - All vehicles leaving the site will be subject to a visual inspection before accessing the internal highways to ensure that the level of dust/mud/debris on the vehicles has been minimised insofar as is practical.
 - At entry points to the working spread from internal site roads, a run of clean stone will be installed and the road itself will be maintained regularly with road sweepers. This is to reduce the exportation of mud onto the local road network and the generation of dust.)
 - It will be the responsibility of The Principal Contractor to undertake a daily inspection of the adjoining internal highways and deploy road sweepers if mud and debris is likely to be deposited on the roads.
 - All road surfaces affected shall be swept clean upon completion of the works.



16.0 Construction Waste Management Plan

16.1 Requirement

16.1.1 In order to reduce waste these measures will be adopted by The Principal Contractor.

16.2 Relevant Legislation and Policy

- 16.2.1 Any works which have the potential to affect soils needs to adhere to the following environmental legislation;
 - Controlled Waste Regulations 2012.
- 16.2.2 The construction works need to adhere to the following guidance;
 - Environmental Good Practice on site, CIRIA C174, 2015; and,
- 16.2.3 For any waste there will be a requirement to identify the waste route through Waste Characterisation Form and subsequent disposal will be managed though the Local Clearance Control process.

16.3 Waste Management

- 16.3.1 The generation of waste will, as the first priority, be avoided wherever practicable. When waste is generated, it will be sent for reuse and recovery, in preference to disposal. Wherever practical, uncontaminated spoil will be reused on site for backfill and the regarding of excavations.
- 16.3.2 As far as possible waste will be minimised, but where it arises it will be managed in accordance with the waste hierarchy where waste is reused or recycled/composted in preference to being disposed of.
- 16.3.3 Soils arising from soil stripping will be carefully placed and stockpiled to facilitate their reuse during the reinstatement and restoration phase. It is considered that none of the soils arising from soil stripping will require off-site management. Volumes of excavation materials will arise from the works and any reuse for backfilling trenches will need to be appropriately controlled and managed via CL:AIRE or site Standard Rules Permit. The majority of this material will be suitable for use in backfilling the trenches, however any excess material will be reused for landscaping within the application area to avoid the need for off-site management. This will ensure that the quantities of waste requiring transport to off-site waste management facilities are avoided, as far as possible.



- 16.3.4 Other wastes may arise through the removal of fencing, gates or other on-site structures. Where possible this waste will be reused on the site itself, for example good quality fencing may be suitable to replace the need for new perimeter fencing. However, where this waste cannot be reused on site, it will be sent off-site for reuse or recycling in preference to energy recovery or landfill disposal.
- 16.3.5 The contractors compound(s) will produce quantities of waste which is likely to comprise office type waste (e.g. paper, toner cartridges, stationery, packaging etc) as well as small quantities of food waste. This waste will be collected by a registered waste carrier and sent to an appropriately licensed waste management facility. The appointed waste management contractor will be required to demonstrate that the waste will be recycled, as far as possible, and their recycling performance will be taken into consideration during the contractor selection process.
- 16.3.6 Waste water arising from general site work and specific activities, such as pressure testing, will be managed appropriately in accordance with environmental legislation and existing site permits. Waste water will be disposed of to foul sewer, unless the appropriate authorisations have been granted to allow discharge to controlled surface waters. No waste water will be discharged to soakaway or otherwise allowed to percolate though the ground sub-surface. This will ensure that both local surface water and groundwater is protected throughout the duration of the project.
- 16.3.7 The use of consumables and raw materials will be carefully considered in order to minimise the production of waste. Where possible, materials will be ordered centrally to reduce the potential for over-ordering and just-in-time deliveries will be encouraged to minimise the time that materials are stored on site. This approach is known to reduce the potential for damage to consumables from, for example, adverse weather or physical damage from mobile plant etc. The use of supplier take-back schemes will also be explored and used for materials such as packaging, where appropriate, as this will significantly reduce the quantities of waste associated with deliveries of raw materials and consumables.
- 16.3.8 In addition, The Principal Contractor will adhere to the following procedures in order to reduce waste.

Buying and Storing Materials

- Will undertake accurate ordering to reduce surplus materials;
- Will arrange for 'just in time' deliveries to reduce storage and material losses; and
- All deliveries that are damaged or incomplete will be rejected.



Waste Segregation

 Separate skips for wood, inert and mixed materials will be provided within the contractor's compound.

Any waste sent for disposal will be directed to sites which hold valid waste management licenses issued by the EA and which are authorised to accept the type and quantity of waste. Transport of wastes will be minimised by the selection of local disposal sites where available. All contractors used for transport of waste will be registered and licensed haulage contractors following 'Duty of Care'. No disposal of waste by dumping or open burning will be permitted on site. All waste will be subject to controlled collection and storage on site.

16.4 Controlled Waste and Contamination

- 16.4.1 The proposed development is on land that has had previous development. The land will be evaluated and risk assessed in accordance with the requirements of the National Planning Policy Framework for land contamination ref. Environment Agency CLR 11 Model procedures for the Management of Land Contamination, with any specific controls put in place as required.
- 16.4.2 There will be a single waste management plan, and all non-domestic/office waste will need to go through Local Clearance Control process which captures management of radiological contamination.



17.0 Protection of Biodiversity

17.1 Requirement:

17.1.1 In order to protect ecological receptors measures will be adopted by The Principal Contractor.

17.2 Relevant Legislation and Policy

- 17.2.1 The Site currently comprises an existing area of hardstanding which has been used as a lay down area, therefore the potential for direct effects on ecological receptors is considered to be limited. However, the ecological management on the site will be undertaken in accordance with the Sellafield Ltd and accepted guidance and standards as set out below.
- 17.2.2 Any works which have the potential to affect ecological receptors needs to adhere to the following environmental legislation;
 - The Wildlife and Countryside Act 1981 (as amended); and,
 - The Conservation of Habitats and Species Regulations 2017.
- 17.2.3 The construction works need to adhere to the following guidance;
 - Environmental Good Practice on Site, CIRIA C174, 2015.

17.3 Ecology Constraints

- 17.3.1 An ecological constraints walkover of the site has been undertaken and identified that the site has some potential for nesting birds. As such the subsequent recommendations have been made;
 - Consider beginning the ground works between 1st August and 28th February (outside of nesting bird season). If work is planned to begin during the nesting season an ecologically competent person should be contacted to inspect the site immediately prior to works commencing. (Note: regardless of the time of year, if a nest is found on site an ecologically competent person should be contacted to assess the situation. Works will be delayed in the vicinity of any occupied next until the young birds have fledged;
 - The area should be treated to prevent habitat forming (treat/remove vegetation);



- Once the project has a confirmed start date an ecologically competent person should be contacted to determine if the site needs to be re-inspected prior to works commencing;
- Operatives working on the project will be provided with relevant tool box talks on identifying wildlife and actions to be taken on discovery of wildlife on the site during the works.

17.4 Tool Box Talks Best Practice

- 17.4.1 A toolbox talk will be provided to site operatives are provided to include the following recommendations:
 - Emergency procedure: In the unlikely event that a protected/notable species, evidence of these
 or its resting place is located during site clearance then works in that area must cease until
 further advice has been sought from a suitably experienced ecologist/ECoW;
 - If any excavations must remain open overnight, it is recommended that access ramps are
 installed each night near to crossing points to allow any animals that accidently fall into the
 excavation a means of climbing out. These can again be roughened planks of wood, or even a
 ramp of earth;
 - Daily checks of any excavations will be made by contractors prior to commencing work to
 ensure that no animals have become trapped in the excavations. Should a trapped
 protected/notable species be found within the works, the ECoW will be immediately contacted
 for advice;
 - Any pipes stored, or installed on site, with a diameter of greater than 200mm will be covered or capped at night to reduce the risk of animals becoming trapped inside; and
 - Consideration will be given to the placement of any gravel storage, or piles of materials that
 may create mounds suitable for digging (e.g. burrow creation). We would advise that any such
 piles are checked on a daily basis by contractor staff to ensure that no digging/burrowing
 activity has taken place. If the mounds are to be in place overnight, the safest approach may be
 to temporarily fence them to ensure that animals cannot access the fresh soil.
 - Ensure that no rubbish or litter is dropped and left behind;
 - A check of the working area prior to commencement of operations to check for nesting



- Prompt removal of construction waste(s), for example building rubble, to reduce potential for nesting areas for birds.
- Ensure construction waste is appropriately stored.
- If required, ensure wildlife exclusion structures are suitably maintained and guidance sought from Suitably Qualified and Experienced Personnel (SQEP) and/or advice should be sought from the SL Environmental Manager.