



Document Ref: 6.3.20  
PINS Ref: EN010082

# Tees CCPP Project

The Tees Combined Cycle Power Plant Project  
Land at the Wilton International Site, Teesside

## Volume 2 - Annex L

Regulations – 6(1)(b) and 8(1)

**Applicant:** Sembcorp Utilities UK  
**Date:** May 2018 **Version:** 2

Annex L

**CEMP**

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## L1 INTRODUCTION

- L1 Sembcorp Utilities (UK) Limited ('Sembcorp') plans to construct and operate a natural gas fired combined-cycle gas turbine (CCGT) generating station with an output capacity of up to 1,700 MWe ('the Project') on land within the Wilton International site, Teesside.
- L2 This document presents a framework for the Construction Environmental Management Plan (CEMP). The detailed CEMP will be produced for the Project following the appointment of the EPC contractor in accordance with a Requirement of the development consent order (DCO).
- L3 Potential impacts have been identified through the Environmental Impact Assessment (EIA) process and are reported in the Environmental Statement (ES). A range of 'standard' or best practice mitigation and construction management measures were accounted for in the assessments presented within the ES and it is assumed these will be implemented during construction of the Project. This framework CEMP demonstrates how these commitments in the ES will be implemented. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out and to demonstrate that they are effective.
- L4 This document provides the likely structure of the CEMP, some preliminary information relevant to the CEMP, and indicates what additional information might be included under each sub-section within the final CEMP, which will be produced by the contractor selected to deliver the Proposed Development construction phase.
- L5 The detailed CEMP will be produced in line with this framework document following receipt of development consent and would be agreed with Redcar and Cleveland County Borough Council (RCBC) and the Environment Agency (EA) in advance of starting enabling works on Site. The need for a detailed CEMP to be produced in this manner is secured through Requirement no. 13 in Part 2 of Schedule 1 to the draft DCO (Application Document Ref. 2.1).
- L6 This framework CEMP covers the principal construction activities envisaged at the time of DCO application. The final scope will be determined through consultation with RCBC and the EA and other relevant regulatory authorities.
- L7 The purpose of the CEMP is:
- to provide a mechanism for ensuring that measures to mitigate potentially adverse environmental impacts are implemented;

- to ensure that standards of good construction practice are adopted throughout the Project;
- to provide a framework for mitigating impacts that may be unforeseen or unidentified until construction is underway;
- to provide assurance to third parties that their requirements with respect to environmental performance will be met; and
- to provide a framework for compliance auditing and inspection to allow Sembcorp or an Appointed Party to be assured that its aims with respect to environmental performance during construction are being met by the EPC contractor.

L8 This Framework CEMP contains a strategic level of detail and is in draft form. It will be further developed prior to commencement of works on site in collaboration with the EPC contractor, who will have to demonstrate how it will comply with these requirements as part of the tendering process.

L9 The CEMP will be iteratively developed as the Project proceeds through the detailed design and construction phases, to reflect the results of any discussions with regulators and consultees and to include details of the requirements imposed by permissions and consents obtained.

L10 The key elements of the CEMP will include:

- an overview of the construction programme of the Project ;reduction of potential adverse impacts identified through the environmental impact process through finalised construction methods and other mitigation measures;
- monitoring of effectiveness of mitigation measures;
- corrective action procedure; and
- links to other plans and procedures.

L11 In summary, the CEMP will identify how commitments made and referred to in the ES will be translated into actions on Site and includes a schedule from implementing the actions through allocation of key roles and responsibilities.

L12 The appointed contractor will be responsible for working in accordance with the environmental controls documented in the CEMP. The overall responsibility for implementation of the CEMP will lie with Sembcorp or an Appointed Party.

L13 The CEMP will be designed with the objective of compliance with the relevant environmental legislation and the mitigation measures set out within the ES. It

should be read alongside any other environmental documents related to the construction phase and the ES submitted in support of the DCO application.

- L14 Any additional construction licences, permits or approvals that are required will be listed in the detailed CEMP, including any environmental information submitted in respect of them.

L15

This section outlines the European Directives, UK legislation, government guidelines, industry standards and codes of practice relevant to the construction of the Project. The list provided in Table L1.1 is intended to highlight the key considerations and should not be considered as exhaustive. It will be the contractor's responsibility to put in place measures to comply with all relevant legislation, standards and codes of practice, as well as with the commitments made in the ES and with DCO requirements that are relevant to construction activities.

*Table L1.1 European Directives, UK legislation, government guidelines, industry standards and codes of practice relevant to the construction*

<b>Environmental Topic</b>	<b>Key EU Directives, UK Legislation, Codes of Practice and Guidelines</b>	<b>Relevance to the Project</b>
<b>Air Quality</b>	Environmental Protection Act 1990	Creates the main regulatory controls over 'statutory nuisance' including smoke, fumes, gases, dust, steam, smells or other effluvia arising on industrial premises so as to be prejudicial to health or a nuisance.
	Clean Air Act 1993	Regulates smoke emissions e.g. from on-site burning of waste.
	Air Quality Standards Regulations 2010	Sets ambient air quality standards for particulate matter (PM10).
	Air Quality Strategy for England, Wales, Scotland and Northern Ireland 2007	Implements the Air Quality Standards Regulations 2010.
	Department of the Environment, Food and Rural Affairs, Expert Panel on Air Quality Standards	Air Quality Standards Guidelines developed by the Defra Expert Panel on Air Quality Standards.
	Institute of Air Quality Management Guidance on the Assessment of Dust from Demolition and Construction (2014)	Guidance for developers, their consultants and environmental health practitioners on how to undertake a construction impact assessment.
	Institute of Air Quality Management Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites (2012)	Best practice recommendations for approaches to monitoring dust.
	Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance (IAQM, 2012)	
<b>Noise and Vibration</b>	EU Directive 2002/49/EC relating to the assessment and management of environmental noise	Defines a common approach to avoiding, preventing and reducing harmful effects from exposure to environmental noise.
	Environmental Noise (England) Regulations 2006 (as amended)	Transposes EU Directive 2002/498/EC into UK law.
	Control of Pollution Act 1974 (Part III)	Gives local authorities the power to impose requirements on how construction works are carried out, particularly in relation to noise and vibration.



Environmental Topic	Key EU Directives, UK Legislation, Codes of Practice and Guidelines	Relevance to the Project
	Environmental Protection Act 1990 (ss.79-82) (as amended by the Noise and Statutory Nuisance Act 1993).	Provides controls over 'statutory nuisance' including noise emitted from premises so as to be prejudicial to health or a nuisance. The amendment through the Noise and Statutory Nuisance Act 1993 applies the controls to nuisances arising from vehicles, machinery, and other equipment.
	British Standard 5228: 1:2009+A1:2014 Noise Control on Construction Sites and Open Sites (BSI 2009)	Recognised by Statutory Order as the accepted guidance for noise control during construction work.
	Noise Act 1996 (as amended)	Controls night-time noise, giving local authorities the power to prosecute and confiscate any noise-making equipment.
<b>Water Quality</b>	EU Directive 2000/60/EC (the Water Framework Directive)	Commits European Union member states to achieve good qualitative and quantitative status of all water bodies by 2015.
	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003	Transposes the Water Framework Directive into UK law.
	EU Directive 2008/105/EC (the Priority Substances Directive)	Aims to phase out of discharges, emissions and losses of hazardous substances listed in the Directive.
	EU Directive 2007/60/EC on the Assessment and Management of Flood Risks (the Floods Directive)	Requires member states to assess the risk of water courses and coast lines within their territory, map the flood extent as well as assets and the population at risk within these areas, and to take adequate and coordinated measures to reduce this flood risk.
	Water Resources Act 1991 (as amended) Section 85	<p>Makes it an offence to discharge poisonous, noxious or polluting material, into any 'controlled waters', either deliberately or accidentally.</p> <p>Polluting materials include silt, cement, concrete, oil, petroleum spirit, sewage or other debris and waste materials.</p> <p>'Controlled waters' include all watercourses and water contained in underground strata. Road drains and surface water gullies generally discharge into controlled waters and should be treated as such.</p> <p>It is an offence to discharge trade effluent to the public sewer or to a sewage treatment works without the consent of the Water Authority.</p>

<b>Environmental Topic</b>	<b>Key EU Directives, UK Legislation, Codes of Practice and Guidelines</b>	<b>Relevance to the Project</b>
	Environmental Protection Act 1990	It is a statutory nuisance to cause a watercourse to be so foul or obstructed that it is prejudicial to health or a nuisance.
	Salmon and Freshwater Fisheries Act 1975 (as amended)	Makes it an offence to discharge effluent which damages fish, their food or their spawning ground, into water containing fish.
	British Standard Code of Practice for Earthworks BS 6031:2009	Detailed methods for controlling drainage from construction sites.
<b>Geology, Hydrology and Contamination</b>	EU Directive 2000/60/EC (the Water Framework Directive)	Commits European Union member states to achieve good qualitative and quantitative status of all water bodies including ground waters by 2015. The primary requirement is that groundwater is protected at least to the same level as that required by the Groundwater Directive (see below).
	EU Directive 2006/118/EC (the Groundwater Daughter Directive, which superseded the previous Groundwater Directive 80/68/EEC)	Transposed into UK law through the Environmental Permitting (England and Wales) Regulations 2010; Section 161A WRA 1991 and Anti-Pollution Works Regulations 1999 (works notices); Section 93 WRA 1991 (Water Protection Zones); Part 2A EPA 1990 and associated regulations.
	EU Directive 2007/EC on the assessment and management of flood risks	Establishes flood risk management plans.
<b>Public Rights of Way</b>	Countryside and Rights of Way Act, 2000	Makes provision for public access to the countryside, amends laws relating to public rights of way and establishes traffic orders.
	Highways Act 1980	Prevents 'wilful obstruction' of highways (including footpaths and bridleways) without lawful authority.
	Town and Country Planning Act 1990	Protects public rights of way from obstruction, diversion, damage and closure.
<b>Waste</b>	EU Directive (2008/98/EC) (the revised Waste Framework Directive)	Defines waste throughout the EU and provides the legislative framework for all aspects of waste handling.
	EC Council Directive 91/689/EEC (the Hazardous Waste Directive)	Commits member states to the controlled management of hazardous wastes as identified by the Directive.
	The Waste (England and Wales) (Amendment) Regulations 2012 (amending the Waste Regulations 2011)	Revised requirements for collection, recovery and transport of waste and requirement of businesses to demonstrate that they have followed the waste hierarchy.
	Hazardous Waste (England and Wales) Regulations 2005 (as amended)	Defines hazardous waste and require producers to register annually if quantity is greater than 500 kg/year.

<b>Environmental Topic</b>	<b>Key EU Directives, UK Legislation, Codes of Practice and Guidelines</b>	<b>Relevance to the Project</b>
	Environmental Protection Act 1990 (Part II)	Applies to 'controlled waste', comprising both hazardous and non-hazardous waste.
	Special Waste Regulations 1996 (as amended)	Defines special waste.
	The Waste Management (England & Wales) Regulations 2006 (as amended),	Provisions for the controlled management of hazardous waste from the point of production to the final point of disposal or recovery.
	Waste Management Licensing Regulations 1995 (as amended)	Dictates the licensing requirements applicable to the management of waste (directly to the licensing of a site or activity) and its processing and disposal.
	Environmental Protection Act 1990, Section 34.	Sets out duty of care provisions.
	Environmental Protection (Duty of Care) Regulations 1991 (as amended)	Places a duty of care on waste producers to ensure that waste is handled correctly
	Waste Management, the Duty of Care, A Code of Practice as issued by the Defra.	This code of practice is imposed by the Environmental Protection Act 1990. The duty applies to any person who produces, imports, carries, keeps, treats or disposes of controlled waste and breach of the duty of care is an offence.
	Site Waste Management Plans Regulations 2008	Although revoked in December 2013, these regulations nonetheless provide useful guidance for the development of Site Waste Management Plan.
	Control of Pollution (Amendment) Act 1989	Makes it an offence to transport controlled waste unless registered with the Environment Agency.
	Pollution prevention guidance prepared by the EA which advises industry about its legal responsibilities	The guidance covers a range of water environment protection matters of direct relevance to the Project
<b>Archaeology and Cultural Heritage</b>	Ancient Monuments and Archaeological Areas Act 1979	Offers legal protection to designated heritage assets.
	Planning (Listed Buildings & Conservation Areas) Act 1990	Provision for the listing of buildings recognised by English Heritage for their special architectural or historic interest.
	Planning Policy Statement : Planning for the Historic Environment Practice Guide (PPS5), 2012	Sets out government objectives for planning for the historic environment, and provides guidance on the application of policy including the management of heritage assets and significance in planning.
<b>Landscape and Visual</b>	European Landscape Convention (2000)	Commits member states to implement national policies and measures relating to the consideration of landscape in planning.
<b>Ecology</b>	EC Council Directive 2009/147/EC on the Conservation of Wild Birds (the 'Birds Directive')	Provides a framework for the conservation and management of wild birds in Europe and provides for the identification and classification of Special Protection Areas (SPAs).

Environmental Topic	Key EU Directives, UK Legislation, Codes of Practice and Guidelines	Relevance to the Project
	EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (The 'Habitats Directive')	Promotes biodiversity by requiring member states to designate of Special Areas of Conservation (SAC).
	Conservation of Habitats and Species Regulations 2010 (as amended)	Transposes the Habitats Directive into UK law.
	Wildlife and Countryside Act 1981 (as amended)	Offers protection to specified animals and plants including great crested newts, bats and badgers.
	The Countryside and Rights of Way Act 2000	Access to Open Country, Public Rights of Way, Nature Conservation and Areas of Outstanding Natural Beauty.
	The Natural Environment and Rural Communities Act 2006	Implements key elements of the Government's Rural Strategy (published July 2004), the UK Biodiversity Action Plans.
	Protection of Badgers Act 1992	Makes it an offence to kill or injure a badger or to interfere with badgers' sets.
	Hedgerow Regulations 1997	Protects 'important' hedgerows in England and Wales from removal and replacement.

## *L2.1 DESIGN AND CONSTRUCTION PRINCIPLES*

L16 The Project has been designed to date to ensure that its impacts can be minimised and this approach will continue through the remainder of the design process. This includes mitigation that is embedded into the design of the Project through the use of industry standard methods and procedures. The Project will be managed in line with the following design and construction principles.

- The Project will be constructed and operated with due regard to environmental and socio-economic sensitivities within and adjoining the Project site and along access routes to and from it.
- Project-related installations will be designed, constructed, operated, and maintained in line with current best practice and to meet all relevant design and safety parameters.
- The Project site will be designed, constructed and operated to facilitate safe access to all areas that will require environmental monitoring.

## *L2.2 HEALTH AND SAFETY PRINCIPLES*

L17 The safe operations and behaviours of the on-site workforce and contractors during construction are a priority for Sembcorp. The key principles of the final CEMP that will contribute to a safe Project site are as follows.

- Sembcorp will fulfil its obligations as Client under the CDM Regulations.
- Health and Safety awareness training will be mandatory for all on-site workers and contractors.
- The Project SHE manager will have authority over the work of all contractors with regard to health and safety issues.
- Sembcorp will ensure adequate health and safety facilities are provided for the Project workforce.
- Sembcorp will ensure appropriate signage (including signage required by legislation) is provided across the Project site regarding the safe behaviours and procedures required.
- Industry standards for health and safety will be applied across the Project site and Sembcorp will seek continuous improvement in health and safety performance.

### **L3 ROLES RESPONSIBILITIES AND REPORTING**

#### **L3.1 COMMUNITY LIAISON**

L18 Ensuring that neighbours and the local community are appropriately and accurately informed about the Project and its construction activities is a priority for Sembcorp. The following steps will be taken to ensure good relationships between Sembcorp and the local community:

- Sembcorp or an Appropriate Party will have a Stakeholder Communications Plan that will include procedures for notifying and informing local residents of planned works, particularly where works extend beyond normal working hours.
- Information regarding the Project will be made available to the general public via the Sembcorp website, including information regarding the construction schedule and a Freephone helpline number for public use for making enquires.
- Sembcorp or an Appropriate Party will have a telephone number for recording and responding to complaints regarding the Project. The site Safety, Health and Environmental (SHE) officer will:
  - a. be responsible for dealing with all complaints and will have the appropriate authority to resolve any issues that may occur. Both the SHE officer and the site managers “out of hours” telephone numbers will be made available;
  - b. maintain a close liaison with the Councils’ Environmental Health officer (EHO) for verification purposes; and
  - c. should any unforeseen event occur within the construction site that has potential to cause off-site pollution, then the SHE officer will immediately notify the EHO by phone and e-mail. As far as possible, notice will be issued to the EHO for dealing with an unforeseen activity, which may give rise to a particular issue such as dust.

#### **L3.2 ENVIRONMENTAL MANAGEMENT ROLE OF SEMBCORP**

L19 The appointed Site Manager will be appointed the responsibility for co-ordinating and managing all environmental activities during the construction phase. The role will involve carrying out the following duties:

- Develop and review the CEMP and all specialist procedures;
- Lead the appointment of construction environmental specialists;
- Ensure delivery of environmental training to personnel within the project team;
- Implement an auditable environmental record system;

- Maintain regular contact and liaison with the Environmental Specialists;
- Ensuring the dissemination of information to the workforce and contractors regarding required operations and behaviours;
- Monitor construction activities and performance of contractors to ensure compliance with the CEMP and that identified and appropriate control measures are effective;
- Carry out audits as required by the CEMP and ensure compliance with Duty of Care at all times;
- Implement and monitor measures to ensure correct waste minimisation, segregation and disposal;
- Development of mechanisms for resolving problems;
- Act as the main point of contact for consultation and feedback with, statutory consultees, the public and other interested parties; and
- The overall environmental management and performance of the Project.

L20 In order to achieve this, Sembcorp will appoint a Safety, Health and Environmental (SHE) manager who will be independent of any of the contractors involved in the construction and will be competent to undertake the environmental management of the Project. The SHE manager will be supported at times and as required by an environmental auditor, who will undertake regular audits of the contractor(s).

### *L3.3 ENVIRONMENTAL MANAGEMENT ROLE OF THE CONTRACTOR*

L21 The Project will be constructed under a contract covering engineering, procurement, construction (EPC), and commissioning services. In addition to statutory obligations, the EPC contractor (or contractors) will be obliged to adopt the environmental working practices operated by Sembcorp, which will apply to all works and sites relating to the Project.

L22 All contractors will be responsible for their own contribution to environmental performance and will be responsible for ensuring compliance with:

- all relevant legislation and codes of practice;
- the environmental controls and mitigation measures in the final CEMP;
- all consent requirements relating to the Project and associated permissions, permits and licences; including construction working hours set out in the requirements of the DCO, and
- any environmental or other codes of conduct required by Sembcorp.

L23 The contractors will undertake weekly / daily environmental inspections to assess and report any potential for environmental emergency situations. This will allow Sembcorp or an Appropriate Party to monitor and evaluate performance.

- L24 Contractors will need to demonstrate to Sembcorp's or an Appropriate Party's satisfaction how they will ensure that the requirements of the CEMP are being complied with. Particular notice will be taken during and following extreme weather events. Contractors will also be required to produce Method Statements and Risk Assessments where significant risk to the environment has been identified. The performance of contractors in complying with the CEMP will be monitored and audited by Sembcorp or an Appropriate Party.
- L25 In the event of any environmental incident, the most senior representative of the main contractor will take the role of responsible person and will take charge of the situation. Where possible, the responsible person will take immediate steps to eliminate the impact on the environment and mitigate / minimise any environmental damage.
- L26 Compliance and non-compliance (established during audits) with the provisions of the CEMP will be recorded by the Sembcorp appointed project team and records will be held in the site office and available for inspection. The SHE manager will be empowered to stop the works if he or she is of the opinion that the provisions of the CEMP are not being met.

#### *L3.4 EXTERNAL COMMUNICATIONS*

- L27 Sembcorp or an Appropriate Party will be responsible for formal external communications, particularly those with regulators, consultees and the public. This includes all consultation processes, events and communications, and the provision of adequate complaints and grievance mechanisms. Contractors may be required to attend meetings with regulators, consultees and the public as appropriate, but always in the presence of a Sembcorp representative.

#### *L3.5 TRAINING*

- L28 Sembcorp or an Appropriate Party will establish procedures to ensure the awareness of all its employees regarding the following:
- their roles and responsibilities in achieving compliance with the Environmental Policy and the requirements of the CEMP;
  - the potential environmental effects of their work activities and the environmental benefits of improved performance; and
  - the potential consequences of departure from agreed operating procedures.

- L29 Sembcorp or an Appropriate Party will provide appropriate environmental awareness training for all personnel whose work may have a significant effect upon the environment. All personnel performing specific assigned tasks with significant environmental effects are qualified on the basis of appropriate education, training or experience, as required. The categories of staff whose work



has a significant effect on the environment will be identified during the management plan development process. However, all staff will have some basic level of awareness briefing.

### ***L3.6 ENVIRONMENTAL MONITORING DURING CONSTRUCTION***

L30 Monitoring of the environmental effects of construction (including drilling) will enable the effectiveness of environmental mitigation to be evaluated, and if necessary facilitate improvement being made. It will also allow environmental problems to be identified and responded to at an early stage.

L31 Sembcorp or an Appropriate Party will ensure that an appropriate programme of environmental monitoring is implemented.

L32 Typical Project activities that will or are likely to require environmental monitoring during (and in some cases, following) construction will include (but not be limited to):

- earthworks and excavations, monitoring for potential contamination to be present in excavated soils;
- earthworks and general construction activities, monitoring for the generation of airborne dust;
- dewatering of excavations, monitoring for the quality of water discharges or sediment laden runoff;
- construction site drainage performance including surface water management and foul drainage provision, monitoring for the quality of water discharges;
- noisy phases of activity and spot checks for 24 hour activity such as drilling;
- excavation, soil deposition and landscaping, monitoring of the condition and treatment of areas for excavation, spoil deposition and landscaping;
- traffic movements, monitoring of traffic volumes and flows to and from the site on public highways; and
- waste management, monitoring of correct waste handling, storage, and removal procedures including the correct documentation of waste carriage.

L33 Monitoring is a catch all term and the actual activities involved could vary from a watching brief to visual inspection to deployment of measuring instruments. The locations, durations and frequencies of monitoring activities will be focused on activities and areas of most potential risk. Monitoring programmes will be incorporated in issue-specific site environmental control plans, where applicable.

### ***L3.7 INSPECTION AND AUDITING***

L34 Contractors will be required to undertake a programme of environmental inspections and audits appropriate to their scope of work, and to demonstrate that their responsibilities under the CEMP are being fulfilled. In addition,

Sembcorp or an Appointed Party will carry out periodic environmental audits of the contractor, as appropriate, to verify compliance with the CEMP.

L35 All accidents, injuries and / or incidents must be reported and will be investigated and reviewed by the EPC Contractor's SHE Manager and/or Sembcorp's appointed SHE Manager as appropriate.

**L3.8 CONTINGENCY PLANNING FOR EMERGENCIES AND ENVIRONMENTAL INCIDENTS**

L36 Procedures to deal with emergencies and incidents will be set out in a specific site emergency response plan. Environmental incidents can be defined as unexpected events which lead to, or could in different circumstances have led to, adverse effects on people, property or on environmental resources such as natural habitats or watercourses.

L37 Emergency response protocols will be detailed in Sembcorp's site management procedures. All of the works associated with the Project will be conducted in accordance with Project-specific risk assessments and method statements, to be prepared by the contractor, and agreed in advance with Sembcorp or an Appointed Party.

L38 Responsibility for the site emergency response procedures will lie with the SHE Manager (or similar). Accidents will be investigated and reviewed by the appointed SHE Manager and Sembcorp.

**L4 CONSTRUCTION PROGRAMME**

L39 The current expectation is that site preparation, construction and commissioning of the Project will take approximately 39 months if constructed in one phase, or will take place over two construction phases both of 39 months each.

L40 Allowing sufficient time to receive development consent and to discharge the DCO Requirements, it is anticipated that the earliest that site preparation and enabling works on Site for the Project would start is Q1 2019, with an expected operational start date of Q1 2022.

L41 Table L4.1 below provides an indicative construction programme.

**Table L4.1 Indicative Construction Programme**

	2019				2020				2021				2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Earthworks	■	■														
Main civil works			■	■	■	■	■	■	■	■	■					
Process works					■	■	■	■	■	■	■	■	■			
Gas connection									■	■	■	■				
Commissioning													■	■		

L42 Construction working hours will generally be Monday to Friday 07:00 to 19:00 and Saturday 08:00 to 18:00, however it is likely that some construction activities will be required to be 24 hours at certain times. These are principally construction activities that cannot be stopped, such as concrete slip forming. Where on-site works are to be conducted outside the core hours they will comply with the restrictions stated in this framework CEMP and any other restrictions agreed with the regulatory bodies. Construction noise limits have been identified for nearby noise sensitive receptors during evening and night-time periods. Thus, where on-site works are to be conducted outside the core hours they will comply with any restrictions agreed with RCBC, in particular regarding the control of noise and traffic. Compliance with these noise limits will ensure adverse effects are unlikely. Abnormal or emergency construction traffic movements may occur outside of normal working hours. In the event of these occurrences, specific noise

mitigation measures will be put in place to reduce potential noise impacts at nearby noise sensitive receptors as set out below.

L43 If any works are deemed urgently necessary in the interests of health or safety then they may occur outside the hours referred to above.

**L4.1** *PARKING PROVISION*

L44 The location and size of parking provisions on Site, access/ egress routes/ gates, loading and unloading areas for plant and materials, storage areas, wheel washing facilities and construction traffic management measures will be set out in the final CEMP. It will also include a description of any laydown areas or contractor accommodation areas.

**L4.2** *OFF SITE DELIVERY ROUTES*

L45 The CEMP will provide details of the designated routes for HGV movements and construction workers car movements, with reference to the Construction Traffic Management Plan (which has been prepared in accordance with draft DCO Requirement no. 15, and for which the framework is included in Annex I2, ES Volume 2I). It will also detail any measures designed to reduce travel during peak hours on the local road network, which modelling has identified to be 0730-0830 and 1630-1730.

**L4.3** *RECYCLING AND DISPOSING OF WASTE*

L46 In order to minimise the waste generated on Project Site during site preparation and construction, the contractor will separate the main waste streams on Site, prior to them being taken to a waste facility for recycling or disposal.

L47 A Site Waste Management Plan (SWMP) will be developed, which will specify the waste streams to be estimated and monitored and goals set with regards to the waste produced. A Framework SWMP is included within the Application, in Annex D4, ES Volume 2 (document 6.3.7). The SWMP will be finalised with specific measures to be implemented prior to the start of construction, in accordance with draft DCO Requirement no 14.

L48 All waste to be removed from Site will be undertaken by fully licensed waste carriers and taken to licensed waste facilities.

**L4.4** *BEST PRACTICE MEASURES*

L49 A Considerate Constructors Scheme (CCS) will be adopted to assist in reducing pollution and nuisance from the construction of the Project, by employing best practice measures which go beyond statutory compliance.

**L4.5** *MANAGEMENT AND MITIGATION PLAN*

L50 This section of the framework CEMP sets out the mitigation and management measures to be included as a minimum in the CEMP. It also illustrates how the monitoring strategy will be set out and the responsible party identified for monitoring each mitigation/ enhancement measure.

**Table L4.2 Transport and Access**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
<p>Increased traffic flows, including HGVs on the roads leading to the Site (A1053).</p>	<p>The contractor will prepare a Construction Traffic Management Plan (CTMP) as required by requirement 15 in the draft DCO to identify a number of measures to control the routing and impact that HGVs will have on the local road network during construction. All construction HGVs will be required to arrive and depart the site either the A66 or A174. A programme of monitoring will be recommended to assess the effectiveness of the measures proposed.</p> <p>The CTMP will include measures to reduce the volume of construction staff and employee trips to the Site and the contractor will liaise with construction personnel for potential to implement staff minibuses and car sharing options.</p> <p>Contract requirements will include establishment of relevant procedures for scheduling arrival of abnormal loads to the site through discussions with the relevant local authorities, including identification of suitable routes, temporary protection to carriageway surfaces (if necessary), statutory undertakers' plant and equipment.</p> <p>Loads of between 20 and 40 tonnes will be restricted to outside the general peak periods as far as possible when using the Strategic and Local Road networks in the area.</p> <p>Advance notification to local residents and businesses.</p>	<p>To be confirmed in detailed CTMP.</p>	<p>To be confirmed in detailed CTMP.</p>

**Table L4.3 Air Quality**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
<p>Control emissions of nuisance dust and PM10 from construction activities.</p>	<p>Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.</p> <p>Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.</p> <p>Make the complaints log available to the local authority when asked.</p> <p>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.</p> <p>If required, hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.</p> <p>Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.</p> <p>Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real time PM10 continuous monitoring and/or visual inspections. The plan should include:</p> <ul style="list-style-type: none"> <li>• Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.</li> <li>• Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked</li> <li>• Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions</li> </ul>	<p>To be confirmed in detailed CEMP.</p>	<p>To be confirmed in detailed CEMP.</p>

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<ul style="list-style-type: none"> <li>• Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.</li> <li>• Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.</li> <li>• Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period</li> <li>• Avoid site runoff of water or mud.</li> <li>• Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below</li> <li>• Ensure all vehicles switch off engines when stationary - no idling vehicles.</li> <li>• Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable</li> <li>• Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate)</li> <li>• 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.</li> <li>• Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate</li> <li>• Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate</li> <li>• Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.</li> <li>• Avoid bonfires and burning of waste materials.</li> <li>• Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.</li> <li>• Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery</li> </ul>		



Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<ul style="list-style-type: none"> <li>For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.</li> <li>Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use</li> <li>Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.</li> <li>Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.</li> <li>Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).</li> <li>Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials</li> <li>Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)</li> </ul>		

**Table L4.4 Noise and Vibration**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
<p>Vibration due to construction activities causing annoyance at Noise Sensitive Receptors and damage to building structures.</p> <p>Evening and night-time noise effect due to construction activities at nearby noise sensitive receptors.</p>	<p>Mitigation measures will be undertaken to mitigate noise.</p> <p>These will be included in the detailed CEMP and will include:</p> <ul style="list-style-type: none"> <li>specifying measures designed to minimise the noise impacts of construction activities as agreed in accordance with requirement no. 13 in the draft DCO;</li> <li>The construction work will be limited to certain days and times unless otherwise agreed with the Local Planning Authority on a case by case basis</li> <li>ensuring that modern plant is used, complying with the prevailing regulatory requirements. Selection of inherently quiet plant where possible;</li> <li>siting noisy plant and equipment as far away as possible from noise sensitive receptors, and use of barriers (eg site huts, acoustic sheds or partitions) to reduce the level of construction noise at receptors wherever possible;</li> </ul>	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<ul style="list-style-type: none"> <li>housing of stationary noise emitting equipment which is required to run continuously in suitable acoustic enclosures hydraulic techniques for breaking to be used in preference to percussive techniques where practical;</li> <li>impact piling to be restricted to the following times (unless required in an emergency), Monday to Friday 09:00 to 18:00, Saturday 09:00 to 13:00, no impact piling on Sunday or Bank Holidays pursuant to requirement no. 13 of the draft DCO;</li> <li>off-site pre-fabrication, where practical;</li> <li>maintenance of plant in good working condition to minimise extraneous noises arising from mechanical vibration;;</li> <li>fitting of mufflers or silencers of the type recommended by manufacturers;</li> <li>shutting down of machines in intermittent periods between work, or throttling down to a minimum;</li> <li>all contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) (BSI, 2014a and b), which should form a prerequisite of their appointment;</li> <li>loading and unloading of vehicles, dismantling of site equipment such as scaffolding or moving equipment or materials around the Site to be conducted in such a manner as to minimise noise generation; and</li> <li>appropriate routing of construction traffic on public roads to minimise vehicle movements.</li> </ul> <p>The existing 6m high noise wall will also provide some screening to construction activities at Lazenby. Procedure to be in place so that noise complaints are monitored, reported to the contractor and immediately investigated.</p>		

**Table L4.5 Water Resources and Flood Risk**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Leakage or accidental spillage of building materials and potential pollutants used on Site, migrating to	The Project will be constructed in accordance with best working practices and measures to protect the water environment and will be in accordance with those measures set out in relevant EA Pollution Prevention Advice and Guidance (PPG) notes. The contractor will comply with:	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
<p>nearby surface watercourse of infiltrating to groundwater. Flood Risk</p>	<ul style="list-style-type: none"> <li>• The Environment Agency's (EA) Pollution Prevention Guidelines (PPG) 1 General guide to the prevention of pollution;</li> <li>• PPG 2 Above ground oil storage tanks;</li> <li>• PPG 3 Use and design of oil separators in surface water drainage systems;</li> <li>• PPG 4 Treatment and disposal of sewage where no foul sewer is available;</li> <li>• PPG 5 Works and maintenance in or near water;</li> <li>• PPG 6 Working at construction and demolition sites;</li> <li>• PPG 7 Refuelling activities;</li> <li>• PPG 13 Vehicle washing and cleaning;</li> <li>• PPG 18 Managing fire water and major spillages; and</li> <li>• PPG 21 Pollution incident response planning.</li> </ul> <p>Measures to incorporate the EA PPG documents as listed above will include:</p> <ul style="list-style-type: none"> <li>• placing arisings and temporary stockpiles away from drainage systems, and directing surface water away from stockpiles to prevent erosion;</li> <li>• containment measures will be implemented, including drip trays, bunding or double-skinned tanks of fuels and oils; all chemicals will be stored in accordance with their Control of Substances Hazardous to Health (COSHH) guidelines;</li> <li>• (Health and Safety Executive, 2002), whilst spill kits will be provided in areas of fuel/ oil storage;</li> <li>• an Emergency Spillage Plan will be produced, which site staff will be required to read and comply with;</li> <li>• the mixing and handling of materials will be undertaken in designated areas and away from surface water drains;</li> <li>• plant and machinery will be kept away from surface water bodies wherever possible and will have drip trays installed beneath oil tanks/ engines/ gearboxes and hydraulics, which will be checked and emptied regularly. Refuelling and delivery areas will be located away from surface water drains; and</li> <li>• exposed ground and stockpiles will be protected as appropriate and practicable to prevent windblown migration of potential contaminants. Water suppression will be used if there is a risk of fugitive dust emissions.</li> </ul> <p>All dewatering activities during excavation and foundation works will include monitoring of water discharges or sediment laden runoff, and will where appropriate be treated prior to discharge to the Wilton Site drainage system. All discharged water will transit through</p>		

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>a temporary sedimentation tank with in the drainage system to remove particulates prior to discharge into the River Tees as per the Wilton Site Environmental Permit.</p> <p>Performance of the construction temporary drainage network, including foul drainage provisions, will be monitored regularly for water quality prior to discharge, to include monitoring and containment / treatment programme for all water discharges and / or sediment laden runoff.</p> <p>In the event of accidental spills involving hydrocarbons, contaminated water will be isolated at the closest intermediate point of intervention and appropriately treated on site prior to disposal or removed off-site for appropriate treatment and disposal. Treatment will likely comprise absorbent materials and capture of the contaminated water prior to determining the method of treatment, which could include off site disposal for large spills.</p> <p>Measures that will be considered for implementation for temporary drainage through the construction design and/or CEMP include:</p> <ul style="list-style-type: none"> <li>• installation of measures such as swales, silt fences and appropriately sized settlement tanks/ ponds to reduce sediment load; and</li> <li>• the Floodline Warnings Direct service.</li> </ul>		

**Table L4.6 Ecology**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
<p>Potential for obtrusive glare, upward light spill and light trespass to impact on ecology.</p> <p>Potential for spillages to enter watercourses and impact ecology.</p> <p>Dust deposition on sensitive ecological receptors.</p>	<p>Mitigation shall be delivered through compliance with industry good practice and environmental protection legislation e.g. prevention of surface and ground water pollution, fugitive dust management, noise prevention or amelioration;</p> <p>A Detailed CEMP will be produced to;</p> <ul style="list-style-type: none"> <li>• ensure legislative compliance in relation to nesting birds, all clearance of suitable vegetation/habitats during site preparation will be undertaken outside the breeding season (typically March-August inclusive for most species), where possible. In situations where this is not possible, an ecologist would check the working</li> </ul>	<p>To be confirmed in detailed CEMP.</p>	<p>To be confirmed in detailed CEMP.</p>

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>area for nests before works commence. If nests were discovered, appropriate mitigation would be implemented to ensure that they are not disturbed or destroyed before any works can commence in that area. This would include imposing exclusion zones between the works and nest(s) and suspending works within the area until any young had fledged.</p> <ul style="list-style-type: none"> <li>• Develop a Lighting Strategy, setting out how lighting impacts on sensitive ecological receptors have been considered and addressed;</li> <li>• Include measures such as ensuring that excavations deeper than 1 m will be covered overnight or a where not practicable a means of escape will be fitted;</li> </ul>		

*Table L4.7 Ground Conditions*

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Potential for risks to human health associated with waste generation, land contamination, airborne contamination and groundwater contamination.	<p>Where possible, and in the interests of sustainability, it is proposed to re-use the soils on site during the construction of the power station. In the event that soils are removed from site it is proposed to seek opportunities to re-use the soils off site, with disposal to landfill being an option of last resort.</p> <p>Materials moved onto and around the Project site will be minimised through careful design of the Project and the construction schedule, together with the completion of a Materials Management Plan (MMP). The MMP will be completed by a consultant working on behalf of the EPC. It will then be submitted and approved by an independent Appropriately Qualified Person prior to the works commencing.</p> <p>The removal from site of materials during construction will be minimised through adopting the principles of re-use on site where appropriate and a balanced cut and fill approach.</p> <p>The disposal of waste, including any surplus spoil, will be managed so far as is reasonably practicable to maximise the environmental and development benefits from the use of surplus material and reduce any adverse environmental effects of disposal in accordance</p>	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>with the relevant waste management regulations eg Environmental Permitting Regulations 2016 and Waste (England and Wales) Regulations 2011, the CL:aire Code of Practice Definition of Waste and the Site Water Management Plan (SWMP)</p> <p>If external fill material is used during site earthworks and surfacing activities, then it will be validated prior to use and tracked from origin.</p> <p>The potential to create pathways for contaminants to travel to the underlying groundwater will be minimised through appropriate design of pilings. Planning and preparing for piling works will follow a separate pre-construction Foundation Works Risk Assessment, and the construction activities will be undertaken in reference to EA guidance, specifically “Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention”. This will be completed by the EPC and submitted to the regulators for approval prior to the works commencing.</p> <p>At the pre-construction stage a separate Sediment Control Plan (SCP) will be designed and followed by contractors throughout the construction process. This will outline the routine working and emergency procedures for the control and mitigation of erosion and dust generation during excavations and soil handling, such as stockpiling soil away from watercourses and undertaking earthworks during dry weather conditions where possible.</p> <p>If contamination that has not been previously identified is encountered on the Project site, no further activity at that location would take place which could disturb that contaminated material until a site investigation has been carried out and appropriate mitigation identified. Moreover, the safety officer (or similar) will ensure that a workers ‘safety information sheet’ is prominently displayed in rest/mess rooms and wash rooms covering such matters as hygiene, work practices and clothing requirements.</p> <p>In the unlikely scenario that unforeseen contamination is found on the Project site, and requires remediation, risk assessments and a remediation strategy would be used to outline elimination of the contaminated materials. These would be agreed with the regulators before the works commenced.</p> <p>In the unlikely event that soil gas is identified as a risk requiring vapour / gas mitigation measures, monitoring would be carried out and the necessary gas mitigation measures would be applied. Additional investigation will be completed to assess the potential for soil gas resulting from soil and groundwater contamination.</p>		

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>Implement pollution control measures including:</p> <ul style="list-style-type: none"> <li>• Good operational practices e.g. the use of Personal Protective Equipment (PPE) such as dust masks;</li> <li>• Ensure that all materials are suitable for their proposed use and will not result in an increase in contamination related risks;</li> <li>• all plant and machinery will be checked regularly and, where possible, the use of drip trays will be employed, should vehicles be parked on unsurfaced areas of the site;</li> <li>• an emergency spillage action plan will be produced and provisions made to contain any leak/spill;</li> <li>• the Contractor will be required to place arisings and temporary stockpiles away from watercourses and drainage systems, whilst surface water will be directed away from stockpiles to prevent erosion;</li> <li>• the risk to surface water and groundwater from run-off from any contaminated stockpiles during construction works will be further reduced by implementing suitable measures including sealing stockpiles to prevent rainwater infiltration. Alternatively bunding and/or temporary drainage systems will be put in place, designed in line with current good practice, following appropriate guidelines and obtaining all relevant licences including discharge consents;</li> <li>• any waters removed from excavations by dewatering will be discharged appropriately, subject to the relevant licences being obtained; and</li> <li>• the Contractor will implement a dust suppression/management system in order to control the potential risk from airborne contamination migrating offsite using industry-standard techniques such as covering soil heaps, misting exposed soils, vehicle and wheel washes.</li> </ul>		

**Table L4.8 Waste and Resources**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	Mitigation measure will be developed to ensure that all operational waste will be dealt with in accordance with the waste duty of care in Section 34 of the Environmental Protection Act 1990 (the Duty) and the Waste (England and Wales)	To be confirmed in detailed SWMP	To be confirmed in detailed SWMP

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>Regulations 2011 and consigned via a registered waste carrier to treatment or disposal at a suitably licensed waste facility;</p> <p>At the pre-construction stage, a SWMP will be developed in accordance with relevant non-statutory guidance from the Department for Environment Food and Rural Affairs (DEFRA, 2008) eg pb13530 Waste Hierarchy Guidance (2011) and Non-statutory guidance for site waste management plans (2008), the Waste Resources Action Programme (WRAP) and in consultation with RCBC.</p> <p>The plan will identify:</p> <ul style="list-style-type: none"> <li>• responsibilities for waste management in accordance with the 'Duty of care';</li> <li>• the waste category and quantities of materials generated;</li> <li>• measures to minimise waste generation;</li> <li>• opportunities for recycling and/or re-use;</li> <li>• proposed treatment and disposal routes;</li> <li>• licensing requirements; and</li> <li>• As part of the SWMP, the contractor will segregate waste to be reduced, re-used and recycled where possible.</li> </ul> <p>The SWMP will also include an audit programme to be undertaken to demonstrate compliance with statutory requirements.</p> <p>Provision will be made within the SWMP for a suitable environmental specialist to identify any 'Hazardous Waste' as defined in The Hazardous Waste (England and Wales) Regulations 2005 (as amended) so that it can be suitably managed and disposed of during works.</p> <p>The re-use of soil and crushed concrete shall be managed on site based on a site specific Materials Management Plan (MMP) as</p>		



Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
	<p>developed based on the principles presented in the Definition of Waste Code of Practice (DoWCoP) authored by CL:AIRE.</p> <p>Appropriate precautions will be taken if materials containing asbestos are encountered. The contractor will observe the exposure limits and measurement methods for asbestos, set out in the Control of Asbestos Regulations 2012.</p> <p>To minimise impacts of waste on the surrounding environment, the following measures will be implemented:</p> <ul style="list-style-type: none"> <li>• damping down of surfaces during spells of dry weather and brushing/ water spraying of heavily used hard surfaces/ access points across the Site as required;</li> <li>• off-site prefabrication, where practical, including the use of prefabricated structural elements, cladding units, mechanical and electrical risers and packaged plant rooms;</li> <li>• burning of waste or unwanted materials will not be permitted on Site;</li> <li>• all hazardous materials including chemicals, cleaning agents and solvent containing products to be properly sealed in sealed containers at the end of each day prior to storage in appropriately protected and bunded storage areas;</li> <li>• all construction workers will be required to use appropriate PPE whilst performing activities on-site;</li> <li>• any waste effluent will be tested and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s; and</li> <li>• materials requiring removal from the Site will be transported using licensed carriers and records will be kept detailing the types and quantities of waste moved, and the destinations of this waste, in accordance with the relevant regulations.</li> </ul>		

**Table L4.9 Cultural Heritage**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
No significant impacts	None proposed at this time.	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

**Table L4.10 Landscape and Visual Amenity**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Increased visibility of construction activities.	<p>Lighting will be designed to reduce unnecessary light spill outside of the Site boundary in accordance with a Lighting Strategy (to be prepared in accordance with draft DCO Requirement 5).</p> <p>Existing vegetation along the boundary of the Site will be retained and managed to ensure its continued presence to aid the screening of low level views into the Site.</p> <p>Land clearance will be limited and occupation to the minimum necessary for the works.</p> <p>Tidy and contained site compounds will be maintained.</p>	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

**Table L4.11 Land Use and Socio-Economics**

Potential Impact	Mitigation/Enhancement Measure	Monitoring Requirements	Responsibility
Loss of vegetation.	None proposed at this time.	To be confirmed in detailed CEMP.	To be confirmed in detailed CEMP.

#### **L4.6** *COMPLEMENTARY PLANS AND PROCEDURES*

L51 In addition to the CEMP, a suite of complementary environmental plans and procedures for the construction phase will be developed in accordance with the draft DCO Requirements, including a SWMP, scheme for the control of construction noise and piling risk assessment. These plans and procedures will build on the principles and procedures set out in this framework CEMP and described in the ES, and will be cross referenced in the detailed CEMP.

L52 On completion of the construction works, a Handover Environmental Management Plan shall be developed, and all appropriate plans and records will be presented to Sembcorp.

#### **L4.7** *IMPLEMENTATION AND OPERATION*

L53 The detailed CEMP will include an organogram showing team roles, names and responsibilities, training requirements, communication methods, document control and environmental emergency procedures. Draft requirement 13 requires a scheme for the notification of any significant construction impacts on local residents to be prepared and mechanisms established for effective communication.

#### **L4.8** *ENVIRONMENTAL SITE CONTROLS REGISTER*

L54 The final CEMP will include a summary register of specific site controls which will be implemented to avoid or minimise environmental effects, reflecting any conditions, requirements and obligations contained in the consent, including those set out in the DCO submitted as part of this application.

L55 The register will cover a range of environmental topics. Where detailed controls are required, these will be captured in issue-specific site environmental control plans. Table L4.12 Typical environmental site controls register provides a typical summary register of environmental controls, drawing on the controls presented in the ES. This summary register will be finalised as part of detailed design and include any measures set out in management plans, as necessary.

#### **L4.9** *KEY ELEMENTS OF THE SITE ENVIRONMENTAL CONTROL PLANS*

L56 To the extent that it is necessary in terms of the scale of the works and the importance of the issue, each management plan will include the following key elements:

- definition of roles and responsibilities;
- description of activity based triggers for implementation of mitigation measures with cost estimates where applicable;

- clear monitoring, inspection and auditing plans including the designation of person(s) responsible;
- evidence of implementation and maintenance of the plan such as the reporting of monitoring results (as applicable) compared to relevant standards;
- description of measurable performance indicators against which monitoring results can be compared;
- defined inductions, training, and capacity-building for those responsible and a roll-out plan of systematic staff and contractor training;
- provision for the review of training packages and training attendance.
- provision for recording that all relevant subcontractors and employees have reviewed the CEMP and relevant policies;
- provision for receiving, reporting and resolving complaints and grievances; and
- provision for the plan to be maintained up to date and relevant.

**Table L4.12 Typical environmental site controls register**

<b>Geology, land use and water</b>				
<b>Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring / audit frequency</b>	<b>Plan review frequency</b>
Contaminated land will be identified and avoided during excavation. If encountered, works will stop and the situation assessed by a suitably qualified person.	e.g. EPC Contractor	e.g. Soil Management Plan; Sediment Control Plan	e.g. continuous throughout construction	e.g. on completion of each construction phase or as required
Construction workforce will wear Personal Protective Equipment (PPE).	EPC Contractor			
Construction bunds, temporary site drainage and sediment traps will be installed as required.	EPC Contractor			
Fluids will be stored, handled, mixed and collected in tanks in properly surfaced and bunded areas.	EPC Contractor			
All fuels, muds and other chemical storage and handling areas will be in accordance with EA PPG2.	EPC Contractor			
Potentially hazardous waste soils will be handled and stored in accordance with Technical Guidance WM3.	EPC Contractor			
<b>Ecology and nature conservation</b>				
<b>Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring / audit frequency</b>	<b>Plan review frequency</b>
Areas of habitat disturbed during construction in temporary works areas will be fully restored back to their original use on completion of the works, including reinstatement of hedgerows and fences.	e.g. EPC Contractor (under supervision of appropriately qualified ecologist)			
Perimeter fencing and screens will be used where necessary to minimise disturbance due to noise and activity.				
Buffer zones around ponds and field drains will be maintained during construction to avoid run-off entering watercourses or water bodies.				
<b>Noise and vibration</b>				
<b>Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring/ audit frequency</b>	<b>Plan review frequency</b>
Use of low noise equipment, and well-maintained to minimise noise.	e.g. EPC Contractor			

Installation of mobile screens where appropriate.				
Noisy activities to be staggered in time and location to avoid cumulative noise effects where possible.				
<b>Air quality Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring/ audit frequency</b>	<b>Plan review frequency</b>
Machinery and dust causing activities will be located away from sensitive receptors where possible.	e.g. EPC Contractor			
Haul routes will be hard surfaced as soon as possible to reduce dust.				
Dust generating activities, such as open stockpiling, will be minimised.				
Stockpiles will be covered, seeded or fenced to prevent wind whipping.				
Exposed areas of earthworks will be re-vegetated.				
On-road vehicles will comply to set emission standards (EURO IV).				
All non-road mobile machinery (NRMM) will use ultra-low sulphur fuel.				
<b>Traffic Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring/ audit frequency</b>	<b>Plan review frequency</b>
HGVs will use designated routes and access point to the site.	e.g. EPC Contractor			
Maintain clear access to roads with appropriate signage visible.				
Workforce to use dedicated parking areas within the site compounds.				
Internal access roads to be kept clear of debris.				
<b>Visual amenity Control</b>	<b>Responsibility</b>	<b>Mechanism of control</b>	<b>Monitoring/ audit frequency</b>	<b>Plan review frequency</b>
Lighting will be positioned and directed to avoid intrusion on adjacent buildings, land uses and passing motorists.	e.g. EPC Contractor			