Table of Contents

Tables

25A. Commitments Register

25.1.1 Notwithstanding anything to the contrary in Chapters 4, 5, and 8 – 24 of this Environmental Statement (ES) (ES Volume I, Document Ref. 6.2), this Commitments Register constitutes the definitive set of commitments made by the Applicants in this Application.

Table 25-1: Commitments Register

Reference / Chapter	Commitment	Secured by
ES Chapter 4 - Proposed Development	The electrical, steam and water circuits and the capture plant will be integrated as far as is technically practicable in order to reduce energy use. For example, steam will be extracted from the Heat Recovery Steam Generator (HRSG) for use in the capture plant and, once used, condensed and returned to the HRSG for re-use.	Development Consent Order (DCO) Schedule 2 (Document Ref. 2.1) Requirement 3: Detailed design
ES Chapter 4 - Proposed Development	The Applicants will consider the need for an auxiliary boiler in further design studies going forward.	DCO Schedule 2 (Document Ref. 2.1) Requirement 3: Detailed design
ES Chapter 4 - Proposed Development	The Applicants will protect human health by safely and responsibly managing activities on site. A Health and Safety Plan covering the works, commissioning and operation of the Proposed Development will be written. A competent and adequately resourced Construction (Design and Management) (CDM) Coordinator and Appointed Contractors will be appointed. The Applicants will require that its own staff, its designers and contractors follow the Approved Code of Practice (ACoP) laid down by the CDM Regulations 2015.	Health and Safety at Work etc. Act (1974) Construction Design and Management Regulations (2015)
ES Chapter 4 - Proposed Development	Written procedures clearly describing responsibilities, actions and communication channels will be available for operational personnel dealing with emergencies. Procedures will be subject to external audit and contingency plans written in preparation for any unexpected complications.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood risk mitigation The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 4 - Proposed Development	A Major Accident Prevention Plan (i.e. a Design Hazard Management Plan) will be produced during the design process and the Health and Safety Executive will be consulted during the design and planning process.	Control Of Major Accident Hazards Regulations 2015 (COMAH)

Reference / Chapter	Commitment	Secured by
ES Chapters 4 - Proposed Development, 8 - Air Quality, 9 - Surface water, Flood Risk, Water Resources, 10 - Geology, Hydrogeology and Contaminated Land, 11- Noise and Vibration, 14 - Marine Ecology and Nature Conservation, 22 – Major accidents and Natural Disasters, 23 - Population and human health	An Environmental Permit will be obtained from the Environment Agency prior to the operation of the Proposed Development; this will set out the preventative and control measures that must be applied to minimise risks of accidental releases to the environment and also the approach to managing accidents and emergencies in accordance with the use of Best Available Techniques (BAT). The permit application will be underpinned by a suitable accredited management system and design and control philosophy to demonstrate how the operator will maintain operational control of the plant and associated activities. The Proposed Development will comply with its Environmental Permit to ensure that any impacts of emissions to air, soil, surface and groundwater, to the environment and human health would be minimised and avoided where practical. This will contain commitments in relation to prevention of contamination, and any sampling required to ensure compliance with the Environmental Permit for the operations. The Proposed Development will be designed such that process emissions to air comply with the Emission Limit Values (EL) requirements specified in the Industrials Emissions Directive (IED), or, if tighter, the LCP BRef. This will be regulated by the Environment Agency through the Environmental Permit required for the operation of the Proposed Development. The air quality assessment of operational impacts has assumed that the ELVs will be met for the operational plant as required under the IED and in accordance with use of BAT under the environmental permitting regime.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
	Prevention of contamination is a specific requirement of the Environmental Permit for the operation of the Proposed Development. Therefore, it will be designed so that it will not create any new areas of ground contamination or pathways to receptors as a result of construction or operation. The Environmental Permit will require operational noise from the PCC Site to be controlled through the use of BAT, which will be determined through the Environmental Permit application. Sampling and analysis of pollutants will be undertaken where required including monitoring of exhaust emission levels using Continuous Emissions Monitoring Systems (CEMS) prior to discharge from the stacks.	
ES Chapter 4 - Proposed Development	The Site will be operated in line with appropriate standards and the operator will implement and maintain an Environment Management System (EMS) which will be certified or accredited to International Standards Organisation (ISO) 14001. The EMS will outline requirements and procedures required to verify that the Site is operating to the appropriate standard.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapters 4 - Proposed Development, 5 - Construction Programme and Management, 12 - Terrestrial Ecology and Nature Conservation, 14 - Marine Ecology and Nature Conservation, 15 - Ornithology, 17 - Landscape and Visual Amenity; Indicative Lighting Strategy	A detailed operational lighting scheme will be submitted to Redcar and Cleveland Borough Council (RCBC) and Stockton-on-Tees Borough Council (STBC) for approval prior to installation, designed in accordance with relevant standards. The external lighting scheme will be designed to provide safe working conditions in all areas of the Site whilst reducing light pollution and the visual impact on the local environment (including ecological and human receptors). The external lighting scheme would be designed in accordance with relevant standards, such as the Guidance Notes for the Reduction of Obtrusive	DCO Schedule 2 (Document Ref. 2.1): Requirement 6: External lighting

Reference / Chapter	Commitment	Secured by
	Light (2020) published by the Institute of Lighting Engineers and/ or Chartered Institution Building Services Engineers (CIBSE) requirements, as appropriate. The lighting scheme would set out how lighting impacts on sensitive ecological receptors, including birds, have been considered and addressed and minimised as far as practicable, for example by directing lighting away from adjacent habitats. General obtrusive lighting impact avoidance measures may include: • adopting a lighting control strategy that turns lights off or dims as necessary for site safety and security; • using photocells as a primary means of control to prevent light from being used when sufficient daylight is available; • where possible, adopting LED luminaires to control obtrusive light due to their high directionality and accordingly the achievable ratio of useful light to spill light; • careful consideration of placement of lighting column and luminaire positioning; • adopting luminaires with minimal upward lighting ratio and full cut-off, where possible; • not tilting luminaires to have uplift above the horizontal, if this is not possible add shielding, hoods baffles, louvres as necessary to ensure potential upward light is controlled; • optimising column heights to allow for sufficient light coverage and minimal tilt of luminaires; • minimising building mounted luminaire heights;	

Reference / Chapter	Commitment	Secured by
	• adopting lamps with similar correlated colour temperatures; • using lamps with a limited UV spectrum in locations which might affect ecological receptors; • using shields and baffles to luminaires; • lighting the site boundaries with low power periphery lighting with an asymmetric forward optic having good back-light cut-off characteristics; and • directing luminaires away from ecologically sensitive receptors.	
ES Chapters 4 - Proposed Development, 5 - Construction Programme and Management, 12 - Terrestrial Ecology and Nature Conservation, 14 - Marine Ecology and Nature Conservation, 15 - Ornithology, 17 - Landscape and Visual Amenity; Indicative Lighting Strategy	During construction temporary site lighting is proposed to enable safe working on the construction site in hours of darkness. Construction temporary lighting will be arranged so that glare is minimised outside the site. The Appointed Contractors will be responsible for establishing the required approach to and levels of lighting, and a Lighting Strategy will be prepared for approval pursuant to a requirement in the DCO as required and detailed in the Final Construction Environmental Management Plan (CEMP). Lighting will be designed to be minimised so as not to cause a nuisance outside of the Site in relation to light disturbance to ecological receptors and the marine environment.	DCO Schedule 2 (Document Ref. 2.1): Requirement 6 External lighting
ES Chapters 4 - Proposed Development, 9 - Surface Water, Flood Risk and Water Resources, 10 - Geology, Hydrogeology and Contaminated Land, 13 - Aquatic Ecology, 14 - Marine Ecology and Nature Conservation, 15 - Ornithology, ES Appendix 9A - FRA	Decommissioning activities will be conducted in accordance with the appropriate guidance and legislation at the time of closure of the Proposed Development. A Decommissioning Environmental Management Plan (DEMP) will be produced and agreed with the Environment Agency as part of the	DCO Schedule 2 (Document Ref. 2.1): Requirement 32: Decommissioning

Reference / Chapter	Commitment	Secured by
	Environmental Permitting and site surrender process. The DEMP will consider in detail all potential environmental risks and contain guidance on how risks can be removed, mitigated or managed. This will include details of how surface water drainage should be managed on the PCC during decommissioning and demolition. Decommissioning will remove all above ground infrastructure, but any buried pipelines will be left in situ. Decommissioning activities will be conducted in accordance with the appropriate guidance and legislation at the time of the Proposed Development's closure. Upon completion of the decommissioning programme, including any remediation works that might be required, the Environment Agency will be invited to witness a post-decommissioning inspection by site staff. The DEMP will include an outline programme of works. A range of pollution control and mitigation measures similar to those during construction will be put in place to avoid, reduce or minimise the risks. These will include a similar range of measures to those defined in the Framework CEMP and will form part of a DEMP. All decommissioning activities will be undertaken in accordance with the waste hierarchy. Materials and waste produced during decommissioning and demolition will be stored in segregated areas to maximise reuse and recycling. All materials that cannot be reused or recycled will be removed from the Site and transferred to suitably permitted waste recovery/disposal facilities. It is anticipated that a large proportion of the materials resulting from the demolition will be recycled and a record will be kept in	

Reference / Chapter	Commitment	Secured by
	order to demonstrate that the maximum level of recycling and reuse has been achieved. Relevant habitat and protected species surveys would be undertaken to inform the specification of relevant working methods and mitigation in the DEMP. Upon completion of the decommissioning programme, including any remediation works that might be required, the Environment Agency will be invited to witness a post-decommissioning inspection by site staff. All records from the decommissioning process will be made available for inspection by the Environment Agency and other relevant statutory bodies, in accordance with the Environmental Permit requirements.	
ES Chapters 4 - Proposed Development, 15 - Ornithology	Combined Cycle Gas Turbine (CCGT) operation will be optimised through monitoring of oxides of nitrogen (NOx), carbon dioxide, methane, oxygen and carbon monoxide concentrations, and temperatures within the combustion system.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapters 4 - Proposed Development, ES Appendix 8B - Air Quality Operational Assessment	Each combustion line will be fitted with Selective Catalytic Reduction (SCR) using either ammonia or urea, for the abatement of emissions of nitrogen oxides (NOx), to prevent the degradation of solvent within the Carbon Capture and Storage plant. The level of NOx removal required will be determined through optimisation studies, to maximise efficiency and minimised emissions and waste. SCR optimisation will be maintained through monitoring of NOx and ammonia within the exhaust gas.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
ES Chapter 4 - Proposed Development	The CO_2 lean flue gases (treated flue gas) will exit from the top of the absorber column via a dedicated stack for dispersion to the atmosphere. The stack from the HRSG associated with the CCGT plant will only be operational when the Proposed Development is operating in an unabated mode. The combustion emissions (NO_x and CO, including NH_3 from the SCR) would be subject to the same emission limits as from the absorber stack and therefore the associated release rates would be comparable. The unabated emissions from the CCGT plant only however would be released at a higher temperature than from the absorber will therefore have improved thermal buoyancy, and consequentially dispersion, resulting in a level of impact for the unabated CCGT operation that is no worse than for the carbon capture mode of operation. The CCGT stack would be sized appropriately to ensure that this is the case	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapters 4 - Proposed Development, 22 - Major accidents and natural disasters	A Hazardous Substances Consent, and if necessary, a lower tier or upper tier COMAH licence, will be obtained.	Hazardous Waste (England and Wales) Regulations 2005 Control Of Major Accident Hazards Regulations 2015 (COMAH)
ES Chapter 4 - Proposed Development	Prohibited materials such as asbestos, polychlorinated biphenyls (PCBs), ozone depleting substances and carcinogenic materials will not be allowed within the design and construction of the built form of the Proposed Development. Other materials recognised to pose a risk to health, but which are not prohibited, will be subject to a detailed risk assessment.	Building Regulations 2010 and rules in specific legislation such as Control of Asbestos Regulations 2012
ES Chapters 5 -Construction Programme and Management, 8 – Air Quality, 9 - Surface Water, Flood	A Final CEMP will be prepared prior to construction and implemented during construction. A Framework	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
Risk and Water Resources, 10 - Geology, Hydrogeology and Contaminated Land, 11 - Noise and Vibration, 14 – Marine Ecology and Nature Conservation, 15 - Ornithology, 21 - Climate Change, 22 – Major accident and natural disasters	CEMP is included in the Application (Appendix 5A, ES Volume III, Document Ref. 6.4). Emissions of dust and particulates from the construction phase of the Proposed Development will be controlled in accordance with industry best practice, through incorporation of appropriate control measures according to the risks posed by the activities undertaken, as determined through this assessment process.	
ES Chapters 5 - Construction Programme and Management, 10 - Geology, Hydrogeology and Contaminated Land, 14, ES Appendix 5A - Framework CEMP	A Site Waste Management Plan (SWMP) based on the Framework SWMP will be developed as part of the Final CEMP, which will specify the waste streams to be estimated and monitored and goals set with regards to the waste produced. Under the DCO requirements, the SWMP must be submitted to, and after consultation with STDC, approved by the relevant planning authority before construction works commence. The SWMP will require that the Appointed Contractors segregates waste streams on-site, prior to them being taken to a permitted waste facility for recycling or disposal. All waste to be removed from the Site will be undertaken by fully licensed waste carriers and taken to suitably permitted waste facilities.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 24: Waste management on site - construction wastes
ES Chapter 5 - Construction Programme and Management	Measures for the management of soils during earthworks will be included within the CEMP. Soil will be manged in accordance with the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites (Defra, 2009).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 5 -Construction Programme and Management, ES Appendix 5A – Framework CEMP	Surface material for laydown areas will be permeable to allow uncontaminated rain water to percolate to ground, with suitably bunded locations identified as storage areas for any hazardous or polluting materials or chemicals to prevent pollution. Storage areas for	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage requirement

Reference / Chapter	Commitment	Secured by
	flammable/toxic corrosive materials will be located in a separate, locked, bunded and fenced off area. Material data sheets will be available for all these materials and the COSHH (Control of Substances Hazardous to Health) assessments kept within the relevant risk assessment for the task, all subject to the Applicants' approval.	
ES Chapters 5 - Construction Programme and Management, 11 - Noise and Vibration, 14 - Marine Ecology and Nature Conservation, 15 - Ornithology ES Appendix 5A - Framework CEMP	The piling method will be designed to reduce the risk of disturbance to birds, marine ecology, or other noise sensitive receptors.	DCO Schedule 2 (Document Ref. 2.1): Requirement 23: Piling and penetrative foundation design DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of noise and vibration – construction
ES Chapters 5 - Construction Programme and Management, 20, ES Appendix 5A – Framework CEMP	The condition of the existing outfall from the former steelworks for long term use for this project is unconfirmed. If it is practical to re-use the existing tunnel, any maintenance activities are likely to be very minor and limited to those described for the outfall refurbishment. Owing to the relatively low discharge volumes and to assist the dissipation of any plume a diffuser will be retrofitted pending design development and consultation with statutory consultees such as the Environment Agency and the Marine Management Organisation (MMO). If the existing water outfall requires replacement this would be installed using trenchless technologies from the PCC Site, under Coatham Dunes and Sands to below Mean Low Water Springs (MLWS) into Tees Bay to minimise effects on habitats and species.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 5
ES Chapters 5 - Construction Programme and Management, 15 - Ornithology	Construction of the CO_2 Export Pipeline from the HP Compressor Station across Coatham Dunes and Coatham Sands to MLWS (including into the Teesmouth and Cleveland Coast Special Protection Area (SPA)/Ramsar and the Teesmouth and Cleveland Coast Site of Special Scientific Interest	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 8

Reference / Chapter	Commitment	Secured by
	(SSSI) will use trenchless technologies under Coatham Dunes and Sands to below MLWS into Tees Bay to minimise effects on habitats and species.	
ES Chapter 5 - Construction Programme and Management	The Natural Gas Pipeline will be constructed using a mixture of open-cut and trenchless techniques.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 2
ES Chapters 5 - Construction Programme and Management, 9 - Surface Water, Flood Risk and Water Resources,15 - Ornithology	The Electrical Connection between the Low-Carbon Power Station Substation and a newly constructed sub-station, located in close proximity to the National Grid's Tod Point sub-station would comprise up 275 kV electrical cables (single circuit) plus and control system cables which would be installed primarily below ground, with existing bridges potentially used to facilitate crossing of the Redcar to Middlesbrough section of the Tees Valley railway line.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 3
ES Chapters 5 - Construction Programme and Management, 9 - Surface Water, Flood Risk and Water Resources, 10 - Geology, Hydrogeology and Contaminated Land, 12 - Terrestrial Ecology and Nature Conservation, 14 - Marine Ecology and Nature Conservation, 20 - Socio-economics and Tourism, ES Appendix 5A – Framework CEMP	The CO_2 Gathering Network will be mostly an above ground pipeline installed utilising existing support infrastructure (i.e. existing pipe racks, sleeper tracks, culverts and pipe bridges) and crossings, where feasible. In the event that a pipe rack or bridge is at capacity, the pipe rack will either be extended to accommodate the additional line or a new rack will be installed parallel to the existing. Crossing of the River Tees would involve construction of the CO_2 Gathering Network pipeline in the existing Sembcorp No. 2 utilities tunnel from the north bank of the Dabholm Gut to Navigator Terminals .	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 6
ES Chapters 5 - Construction Programme and Management, 11, ES Appendices 5A – Framework CEMP, 16B - Framework Construction Worker Travel Plan, 16C - Framework Construction Traffic Management Plan	Construction working hours will generally be Monday to Friday 07:00 to 19:00 and Saturday 07:00 to 13:00, however it is likely that some construction activities will be required to be 24 hours at certain times (e.g.	DCO Schedule 2 (Document Ref. 2.1): Requirement 20: Construction hours

Reference / Chapter	Commitment	Secured by
	concrete pouring, trenchless crossings of the River Tees and Coatham Dunes and Sands). Where on-site works are to be conducted outside core working hours, they will comply with any restrictions agreed with the local planning authorities, in particular regarding control of noise and traffic. A noise monitor will be installed at the boundary of the Site, with a day-time and night-time noise limit to be used during construction agreed with RCBC and STBC.	
ES Chapters 5 - Construction Programme and Management, 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 16C - Framework Construction Traffic Management Plan	A self-contained wheel wash will be installed and will be used by vehicles prior to exiting the construction site prior to joining the public highway. For loads unable to use the fixed wheel wash, a localised wheel washing facility will be set up. Wheel cleaning facilities should also be located at each of the temporary access points to the Natural Gas Pipeline and CO_2 Gathering Network. All HGVs leaving the construction site should be required to wheel wash when exiting the Site. The need for this measure should be periodically reviewed throughout the construction period.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapters 5 - Construction Programme and Management, 11 - Noise and Vibration	Laydown areas/construction compounds for construction materials for the CO_2 collection network and gas connections will be provided and will be located within the Site boundary.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 9
ES Chapters 5 - Construction Programme and Management, 16 - Traffic and Transportation, 21 - Climate Change	The Applicants will seek to maximise sustainable transport options such as public transport (including rail), cycling and car sharing. These measures will be outlined in a Construction Workers Travel Plan. Liaison with the Appointed Contractors for the potential to implement construction worker minibuses and car sharing options. Implementation of the Construction	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction workers travel plan

Reference / Chapter	Commitment	Secured by
	Traffic Management Plan (CTMP) to control the impact of HGVs on the local road network during construction.	
ES Chapters 5 - Construction Programme and Management, ES Appendix 5A – Framework CEMP	Piling design and construction works would be completed following the preparation of a piling risk assessment, completed in accordance with the Environment Agency's 'Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention'. A piling and penetrative foundation design method statement would be submitted to and after consultation with the Environment Agency, agreed with the local authority. This is proposed to be secured by a Requirement of the draft DCO (Document Ref. 2.1).	DCO Schedule 2 (Document Ref. 2.1): Requirement 23: Piling and penetrative foundation design
ES Chapters 5 - Construction Programme and Management, 16 - Traffic and Transportation	HGV construction traffic will access/depart the PCC Site via existing access roads from the A1053 Tees Dock Road, north of Grangetown and approximately 4 km south of the Teesworks site. From here, it is currently anticipated that the bulk of HGV traffic will travel along the A19 which will be accessed from either the A66, passing north of Middlesbrough, or the A174, passing to the south. However, it is likely that a lesser amount of HGV traffic may access the site via the trunk road travelling along the A1085 or A174 to the East of the access point; or from the A1053 Tees Dock Road and then using site roads north of Lackenby Steelworks to the PCC Site. Access to the CO_2 Gathering Network and Natural Gas Connection Corridor north of the Tees will be via the A1185, A1046, A178, B1725, Cowpen Bewley Road, Nelson Road and Seaton Carew Road for both construction staff and HGVs.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction traffic management plan
ES Chapter 5 - Construction Programme and Management	To support the pipeline export routes from the PCC Site across the dunes within the working corridor to the	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction traffic management plan

Reference / Chapter	Commitment	Secured by
	near shore, a gate will be created on the northern boundary of the PCC Site to allow construction personnel to transit to/from the pipeline work area out with the main site boundary. This will reduce the traffic flow on the private South Gare Road. The gate will be security access controlled with temporary traffic control measures in place to minimise risks of collisions during egress.	
ES Chapter 5 - Construction Programme and Management	Commissioning of the Proposed Development will include testing and commissioning of the process equipment. A commissioning plan will be agreed with the Environment Agency through the Environmental Permit, which will specify monitoring and control procedures to be used and set out a schedule of commissioning activities.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 8 - Air Quality	Emissions of dust and particulates from the construction phase of the Proposed Development will be controlled in accordance with industry best practice, through incorporation of appropriate control measures according to the risks posed by the activities undertaken. The management of dust and particulates and application of adequate mitigation measures will be enforced through embedding measures in the Final CEMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 8 - Air Quality	Good practice will also be employed for the siting and operation of Non-Road Mobile Machinery to control associated emissions including minimising vehicle and plant idling, locating static plant away from sensitive boundaries or receptors and minimising operating time outside of normal working hours/ daylight hours.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 8 - Air Quality	Emissions of amines will be controlled in accordance with the use of Best Available Techniques through the	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
	use of water wash stages prior to the flue gas exiting the stack; the use of water wash enables solvent that is carried over in the flue gas to be captured and returned to the process for re-use.	
ES Chapter 8 - Air Quality	The management of construction phase emissions, including dust and particulates, and the application of adequate mitigation measures will be enforced through the Final CEMP, and through the application of appropriate mitigation according to the risk of dust emissions from Site construction activities as identified in the construction air quality assessment.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 8 - Air Quality	Stack monitoring arrangements will be detailed in the Environmental Permit application for the Proposed Development and will take account of all relevant guidance.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Process water will be treated on site to an appropriate standard as agreed with the Environment Agency, and then discharged to Tees Bay via the outfall. Alternatively, process water will be directed to the adjacent Bran Sands WwTW via a pipeline for treatment. The treated effluent will be returned by a parallel pipeline to the PCC for discharge to Tees Bay via the outfall.	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	All potentially contaminated surface water (PCSW) runoff will be discharged to an attenuation pond prior to treatment (including chemical dosing and using an oil/water interceptor) and then discharged to the Tees Bay via the outfall retention pond	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Construction phase operations would be carried out in accordance with guidance contained within the Environment Agency PPGs 6, 7, and 18, and specific to water environment protection: CIRIA documents and	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
	British Standards Institute documents detailed in Chapter 9. All of these measures will be outlined with the CEMP.	
ES Chapters 9 - Surface Water, Flood Risk and Water Resources,14 - Marine Ecology and Nature Conservation	The Appointed Contractors will be required to prepare a Water Management Plan (WMP), which will be appended to the Final CEMP and will include details of pre, during and post-construction water quality monitoring to verify that mitigation measures are operating as planned and preventing pollution. The water quality monitoring programme will be developed by the Appointed Contractors in consultation with the Environment Agency and Marine Management Organisation during the process of obtaining environmental permits/licences for works affecting, or for temporary discharges to, watercourses within the Site. The monitoring will include a combination of daily observations and monitoring using a calibrated handheld water quality probes regular water quality sampling for laboratory analysis on a regular or ad-hoc basis at locates specified in the WMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Reasonably practicable measures will be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing waterbody, arising from construction activities as set out in the Final CEMP. The measures will accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites'.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 14 - Marine Ecology and Nature Conservation, ES Appendices 5A – Framework CEMP, 9C - WFD Assessment	A temporary drainage system will be developed during construction to prevent runoff contaminated with fine particulates from entering surface water drains without treatment. Discharge to surface water drains (directly or indirectly) will only be made with the permission of	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage

Reference / Chapter	Commitment	Secured by
	the Environment Agency (or Northumbrian Water if to the public foul sewer) and with the necessary treatment measures implemented.	
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	To protect waterbodies from fine sediment runoff, topsoil/subsoil will be stored a minimum of 20 m from any water body on flat lying land (and further if the ground is sloping, subject to on- site risk assessment on observational monitoring) and not within the fluvial floodplain. Where this is not practical, and it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth. In all situations, runoff from the stockpile will be prevented from draining to a watercourse without prior treatment. If located where there is a risk of tidal flooding or within fluvial Flood Zone 2, additional measures will be provided to reduce the risk of erosion. Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Equipment and plant are to be washed out and cleaned in designated areas within the Site compound where runoff can be isolated for treatment before discharge to surface water drainage under appropriate consent and / or agreement with Environment Agency and / or Northumbrian Water, or otherwise removed from site for appropriate disposal at a permitted waste facility.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage requirement

Reference / Chapter	Commitment	Secured by
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Measures will be implemented to manage the risk of accidental spillages on site and potential conveyance to nearby waterbodies via surface runoff or land drains. The measures relating to the control of spillages and leaks will be included in the WMP and CEMP and adopted during the construction works.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001. Particular care will be taken with the delivery and use of concrete and cement as it is highly corrosive and alkaline. Fuel and other potentially polluting chemicals will either be stored in self bunded leak proof containers or in a secure impermeable and bunded area. All bunded areas on the Site will provide 110% of stored volume and will be constructed with impermeable materials. Storage tanks will be designed to industry codes and standards. Installation of the storage tanks within a secondary containment system (bund) designed in accordance with CIRIA C736 guidance.	Control of Substances Hazardous to Health Regulations 2002 Control of Pollution (Oil Storage) (England) Regulations 2001 DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Any plant, machinery or vehicles will be regularly inspected and maintained to confirm they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off site if practical or only at designated areas within the Site compound. Only construction equipment and vehicles free of all oil/fuel leaks will be permitted on site.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 5A – Framework CEMP	All washing down of vehicles and equipment (including wheel washing) will take place in designated areas and	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
	measures will be implemented to prevent wash water from passing untreated into watercourses.	
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 13, ES Appendices 5A – Framework CEMP, 9C – WFD Assessment	A Pollution Prevention Plan will be prepared and included alongside the CEMP. Spill kits and oil absorbent material will be carried by mobile plant and located at high risk locations across the Site and regularly topped up. All construction workers will receive spill response training and toolbox talks. Spill kits will be included in working areas.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, ES Appendices 5A – Framework CEMP, 9C – WFD Assessment	The Site will implement security mitigations to reduce the risk of any vandalism that could lead to a pollution incident.	DCO Schedule 2 (Document Ref. 2.1): Requirement 8: Means of enclosure Requirement 9: Site Security
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Construction waste / debris are to be prevented from entering any surface water drainage or water body. Surface water drains on roads or within the construction compound will be identified and, where there is a risk that fine particulates or spillages could enter them, the drains will be protected (e.g. using covers or sandbags) for the duration of the construction activities.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Suitable facilities for concrete wash water (e.g. geotextile wrapped sealed skip, container or earth bunded area) will be provided to adequately contain such water, prevent it from entering any drain, and to remove it from the Site for appropriate disposal at a suitably permitted waste facility.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 9C - WFD Assessment	In addition, any site welfare facilities will be appropriately managed, and all foul waste disposed of by a licensed contractor to a suitably permitted facility.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 9C - WFD Assessment	Appropriate licences and permits will be obtained from the Environment Agency and Marine Management	The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
	Organisation with regards to discharges and construction of the replacement outfall within Tees Bay as well as the CO_2 Export Pipeline. and all conditions would be adhered to. Best practice construction approaches would be adopted	
ES Chapter 9 - Surface Water, Flood Risk and Water Resources, 21 - Climate Change	All construction materials and temporary compounds associated with the construction of the Proposed Development will be located in Flood Zone 1 where practical. During the construction phase, the Appointed Contractors will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. The Appointed Contractors will be required to sign up to Environment Agency flood warning alerts and describe in the Flood Emergency Response Plan the actions it will take in the event of a potential flood event. If water is encountered during below ground construction, suitable de-watering methods will be used. The Appointed Contractors will be required to monitor weather forecasts and plan works accordingly, protecting workers and resources from any extreme weather conditions	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood risk mitigation
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	A drainage philosophy will be produced which will describe the routes for drains within the power plant, capture plant and common areas of the Proposed Development. This will be further defined in consultation with the Environment Agency, the Lead Local Flood Authority (LLFA) (RCBC and STBC) and Northumberland Water Ltd as the project progresses, taking into account the findings of the Flood Risk Assessment (FRA) and water quality assessment. The proposed drainage system is to include the use of sustainable drainage systems (SuDS) to provide	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage

Reference / Chapter	Commitment	Secured by
	treatment of runoff to help avoid potential adverse effects on water quality.	
ES Chapter 9 - Surface Water, Flood Risk and Water Resources, 13 - Aquatic Ecology	Diesel Generator, Tankage Area and Central Chemical Storage Area Surface Water Drainage – the emergency diesel generator, diesel tankage storage area, and central chemical storage area (excluding amine storage – see below) shall be paved and kerbed/bunded. Contaminated water will be disposed of off-site at a suitably permitted waste facility in accordance with the operational sites Environmental Management System (EMS).	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Clean Surface Water runoff will be discharged from the site via the existing or new surface water outfall to the Tees Bay without treatment via a retention pond. This system will not be used to collect any drainage from process equipment or from process paved areas for which there is a greater risk of contamination.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	PCSW runoff from areas that are at risk of contamination with hydrocarbons and chemicals shall be provided with a passive diversion chamber and a local off-line Interceptor Sump. The Interceptor Sumps shall be provided with isolation and be arranged to collect credible moderate spills (typically 5 m^3). Non-contaminated surface water runoff shall be routed to the PCSW system, consisting of an attenuation pond, oil interceptor and outfall retention pond. Contaminated surface water may be transferred to the on-site treatment facilities be removed for off-site disposal at a suitably permitted waste facility. PCSW flows in excess of the capacity of the spillage pits shall be enabled to flow through the diversion chamber to the downstream PCSW system (including attenuation pond, oil interceptor and outfall retention pond).	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Capture Plant Area Surface Water Drainage - The Capture Plant area shall be paved and kerbed/bunded with controlled discharges to help avoid uncontrolled surface run-off and contain spillage and leakages from equipment. Amine contaminated water shall not be discharged to any open drain systems or to the outfall to Tees Bay. Disposal of degraded amine will off-site at a suitably permitted waste facility. A connection from the kerbed/bunded area to the PCSW system shall be provided with a normally closed valve/sluice gate to enable pooled rainwater not contaminated with chemicals to be drained to the PCSW system manually following inspection of the water contained in the bunded area. The operator shall sample for laboratory analysis the pooled water to confirm that levels of chemicals and amine do not breach relevant thresholds before it is allowed to drain to the PCSW system.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Firewater Run-Off will be controlled via a baffled overflow weir and an inlet channel flow diversion valve in the PCSW system. In a fire event, the valve shall be closed (automatically or manually) and the firewater run-off will overflow to the Fire Water Run-Off Collection pond for off-line storage prior to disposal. In the event that the Fire Water Run-Off Collection pond is full, a higher level overflow will route further firewater run-off back to the PCSW attenuation pond.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Sanitary waste water from welfare facilities in the administration and control building, workshop and warehouse building and gatehouse will be drained via conventional foul sewer sumps and be pumped off-site to the Northumbrian Water foul sewer connection.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 13 - Aquatic Ecology, 14 – Marine Ecology and Nature Conservation, ES Appendix 9C -WFD Assessment	A Surface Water Maintenance and Management Plan will be prepared by the operator. The maintenance regime will need to be fully implemented throughout the lifetime of the Proposed Development to reduce the risk of issues such as blockages which could lead to flooding, or failure of the spillage containment and pollution prevention systems. The maintenance required for the SuDS features will be based on standard guidance and practice as described in The SuDS Manual (CIRIA, 2015a). Maintenance of proprietary treatment systems (i.e. oil interceptors) will be in accordance with the manufacturers requirements.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 9C -WFD Assessment	Water sampling facilities are to be provided for manual sampling of process water prior to discharge. The frequency of testing and parameters to be tested will be agreed with the permitting authority. In situ continuous monitoring of flow, temperature, total organic carbon (TOC) conductivity and pH measurement will also be undertaken. Treated process water that is to be directed to the outfall would flow via the outfall retention pond upstream which would provide a sufficient residence time to allow equalisation and for operators to take action should water quality deteriorate. Water sampling facilities are to be provided for manual sampling of water prior to discharge. The frequency and method of testing and parameters to be tested will be agreed with the Environment Agency.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	The Drainage Philosophy will require provisions for dealing with any chemical spillages and firewater. An Emergency Response Plan will be in place for dealing with emergency situations involving loss of	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage The Environmental Permitting (England and Wales) Regulations 2016 (as amended)

Reference / Chapter	Commitment	Secured by
	containment of hazardous substances and will implemented as part of the site's EMS which will consider the following guidance documents: • HS(G)191 Emergency planning for major accidents. Control of Major Accident Hazards Regulations 1999 (Health and Safety Executive, 1999); • HS(G)71 Chemical warehousing: the storage of packaged dangerous substances (Health and Safety Executive, 1992); and • BS 5908: Fire and explosion precautions at premises handling flammable gases, liquids and dusts. Code of practice for precautions against fire and explosion in chemical plants, chemical storage and similar premises (British Standards Institute, 1990). Northumbrian Water Ltd will be consulted during the development of the Emergency Response Plan. Should any spillage occur that results in the pollution of Controlled Waters, then the Environment Agency would immediately be informed, or Northumbrian Water should it impact the foul water system.	
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Cooling Water Make-Up: The PCC is to be provided with an open loop cooling system with mechanical draft evaporative cooling towers to cool the process equipment within the facility. Fire Water: Tanks are to be filled with water to meet the instantaneous demand required for active fire protection.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 1b
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 10 - Geology, Hydrogeology and Contaminated Land	At the end of its design life decommissioning of the Proposed Development will see the removal of all above ground equipment down to ground level. If underground infrastructure remains in-situ, all	DCO Schedule 2 (Document Ref. 2.1): Requirement 32: Decommissioning

Reference / Chapter	Commitment	Secured by
	connection and access points will be sealed or grouted prior to disconnection.	
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 10 - Geology, Hydrogeology and Contaminated Land	Prior to construction works commencing, a Ground Investigation and testing followed by a Quantitative Risk Assessment (and Detailed Quantitative Risk Assessment if required) will be completed, and a Remediation Strategy will be developed. This will be in accordance with Land Contamination Risk Management Guidance (Environment Agency, 2020), BS10175:2011+ A2:2017 Investigation of Potentially Contaminated Sites: Code of Practice (British Standards Institute, 2013b) and the Environment Agency's GPLC1 Guiding Principles for Land Contamination in Assessing Risks to Controlled Waters.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater requirement
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Should the Proposed Development comprise below ground development within strata where groundwater is recorded as present, mitigation measures, including some of those outlined in British Standard 8102 (BS8102) will be required to reduce the risk of groundwater flooding to underground structures as is best practice.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	All new pipes to be installed for the Proposed Development will be appropriately sized to accommodate their calculated capacity requirements. The projected impact of climate change on expected flows will be accommodated in the design of drainage infrastructure.	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, ES Appendix 9C - WFD Assessment	All chemical products are to be labelled with their hazard ratings so that the user is aware of any potential risks to the environment. Only well trained,	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
	certificated and staff experienced in the use of the various chemical products will be allowed access.	
ES Chapter 9 - Surface Water, Flood Risk and Water Resources	Measures to control the storage, handling and disposal of fuel, hydraulic fluids, solvents, grouts, paints and detergents and other potentially polluting will be implemented prior to and during construction to manage the risk of such substances entering a watercourse.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Construction environmental management plan
ES Chapters 10 - Geology, Hydrogeology and Contaminated Land, 14 - Marine Ecology and Nature Conservation	All re-fuelling of plant during construction will take place in appropriate areas to be agreed in the CEMP, i.e. ones that have an impervious base and are bunded or provided with interceptor drains. Spill kits will be kept with all vehicles on site and all bowsers are to be double skinned or have a bund. Vehicles and equipment will not be left unattended during re-fuelling. In order to prevent materials leaking from static plant, such as pumps and generators, contaminating the ground, static plant will be placed on drip trays/ purpose built self-bunded containers wherever practicable. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Construction environmental management plan
ES Chapters 10 - Geology, Hydrogeology and Contaminated Land, ES Appendix 9C - WFD Assessment	During the construction of the Proposed Development: • All storage of drums of fuel, oil, grease, chemicals and all other hazardous material will be within the temporary construction compound and will be bunded. • Any spillages or leaks will be dealt with promptly and all waste disposed of in an appropriate manner. • All tanks, drums and other containers will be clearly marked as to their contents.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
	Before any tank is removed or perforated, all contents and residues will be emptied by a competent operator for safe disposal.	
ES Chapters 9 - Surface Water, Flood Risk and Water Resources, 14, ES Appendix 9C - WFD Assessment	The use of the chemical products will follow the product-specific environmental guidelines, as well as the legislative requirements set out in the Control of Substances Hazardous to Health Regulations (COSHH (2002) and Control of Major Accident Hazards (COMAH) Regulations (2015). A site Emergency Response Plan (prepared for Regulation 9 of the COMAH Regulations) will be in place for dealing with emergency situations involving loss of containment of hazardous substances. Northumbrian Water will be consulted during the development of the Emergency Response Plan.	Control of Substances Hazardous to Health Regulations (2002) Control of Major Accident Hazards (COMAH) Regulations (2015)
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land, ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Prior to the design and construction of the Proposed Development, ground investigation will be required as part of future phases of ground conditions assessment and design, to assess the degree to which the Site is contaminated, to verify the baseline conditions within the PCC development area and CO_2 Export Corridor, and to verify the assumptions obtained from the desk based assessment. The GI will be specified in accordance with the UK Specification for Ground Investigation (Site Investigation Steering Group, 2012) and carried out in accordance with BS EN 1997-2:2007 (British Standards Institution, 2014). Groundwater level monitoring will be undertaken as part of the GI.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Confirmatory laboratory testing will be carried out as part of future ground investigation works to a allow further Generic Quantitative Risk Assessment (GQRA)	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater requirement

Reference / Chapter	Commitment	Secured by
	and Detailed Quantitative Risk Assessment (DQRA) to refine the conceptual model and baseline assumptions, in accordance with Phase 2 works recommended in GPLC1.	
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Any further assessment needed of any existing contamination will be risk-based and will develop upon the initial Conceptual Site Model that is produced. This will also involve further assessment of the contamination sources, receptors and plausible pollutant linkages at the Site, in accordance with government guidance (Contaminated Land Statutory Guidance - Defra 2012) and the UK framework for the assessment of risk arising from contaminated land. The assessment will take into account principles adopted by the EA in Land Contamination: Risk Management (2019). The significance of impacts will take into account the principles of assessment identified in CIRIA Report C552, (CIRIA, 2011) and EA's guiding principles for land contamination in assessing risks to controlled waters (Environment Agency, 2010).	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land, ES Appendix 9C - WFD Assessment	The need for piling works for construction of the PCC will be assessed in the Foundation Options Study. Any piling works needed will be planned in accordance with best practice guidance 'Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention, EA National Groundwater & Contaminated Land Centre Report NC/99/73. Piling operations would be subject to foundation works risk assessment and prevention of contamination of bedrock would be covered by measures detailed in piling method statements. The	DCO Schedule 2 (Document Ref. 2.1): Requirement 23: Piling and penetrative foundation design

Reference / Chapter	Commitment	Secured by
	piling method will be designed to not cause contamination of the Sherwood Sandstone Aquifer. Where contaminated soils and elevated groundwater levels are identified by the GI and piling is required, consideration will be given to construction of cased rotary bored piled foundations to remove potential pathway between Made Ground and underlying bedrock. All Piling Activities will be carried out under an appropriate Piling Risk Assessment including groundwater monitoring. If piling is required, low noise piling techniques will be adopted where practicable.	
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	If during the course of the development, any contamination is found which has not been previously identified, an appropriate risk assessment will be prepared. Any actions resulting from the risk assessment will be agreed with the Local Planning Authorities / Environment Agency along with any appropriate remedial measures. Contamination assessment will be in accordance with the CIRIA C552 - Contamination Land Risk Assessment, A Guide to Good Practice and the Land Contamination Risk Management Guidance. These remedial measures will be adopted as part of the scheme.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	The suitability of excavated materials for re-use will be assessed as part of the proposed ground investigation works. All earthworks operations will need to be undertaken in accordance with BS6031:2009 ‘Code of Practice for Earthworks’ (British Standards Institution, 2009) and Highways England (HE) guidelines including Design Manual for Roads and Bridges (DMRB) Series 600 ‘Earthworks’ (Highways England, 2009)	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater

Reference / Chapter	Commitment	Secured by
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Land disturbance during construction will be reduced as far as is reasonably practicable and disturbed areas outside the footprint of the Proposed Development will be revegetated as soon as reasonably practical after construction. Soil excavation will be undertaken with consideration given to the prevailing ground and weather conditions when programming the execution of the works to reduce the potential for mobilisation of exposed soil and / or sediment. Although not anticipated to be widely present, if encountered, topsoil and subsoil will be kept separately during excavation.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Temporary construction compound areas will be located away from all significant surface water bodies where possible. If the buffer zone has to be reduced impermeable liners and bunds will need to be used to prevent materials entering watercourses. Washing out of vehicles or equipment will only take place in controlled areas. Suitable areas will be identified within the CEMP and consultation with the EA will take place before construction commences	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapters 10 - Geology, Hydrogeology and Contaminated Land., ES Appendix 5A - Framework CEMP	The Appointed Contractors will be required to prepare a location map of all potential contamination sources from construction activities as part of the CEMP (including appended SWMP, MMP and AMP) and will include fuel, oil and chemical storage areas, vehicle compounds, refuelling sites and waste storage areas. The preparation of an inventory of all chemicals, fuels and oils will be kept up to date and be available on site. Spill contingency plans will be created for each of the items on the inventory. These will be supported by warning notices and appropriate spillage containment equipment and materials at key locations.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan

Reference / Chapter	Commitment	Secured by
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	The following additional operational mitigations will be implemented to manage potential impacts on soils and groundwater - a groundwater quality monitoring plan will be prepared and implemented.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Excavated soils will be stockpiled and re-used within landscaping areas, where practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land.	An Ecological Risk Assessment and Mitigation Strategy will be developed and implemented in during the construction phase.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Pipeline sections will not be joined within sections of open cut.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Any staff involved in fuel handling will be given appropriate training, and site-specific procedures will be developed for all staff.	Water Resources Act (1991)
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	Chemicals, fuels and oils will need to be stored in secure and designated storage areas in accordance with the appropriate regulatory requirements. Storage areas will all need to be located on hardstanding areas to prevent the possible infiltration of contaminants into soils.	Control of Pollution (Oil Storage) (England) Regulations 2001 Control of Substance Hazardous to Health (COSHH) Regulations 2002
ES Chapter 10 - Geology, Hydrogeology and Contaminated Land	A Materials Management Plan (MMP) and a Hazardous materials management plan including Asbestos (Asbestos Management Plan- with particular emphasis is placed on the development of the PCC Site) will be developed and appended to the Final CEMP to provide suitable controls to facilitate the re-use of materials such as soils and crushed concrete. S Remedial Options Appraisal and Remediation Strategy will also be developed and appended to the Final CEMP and SWMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management

Reference / Chapter	Commitment	Secured by
ES Chapter 10 - ES Appendix 5A - Framework CEMP	The site reclamation scheme will actively work towards achieving an earthworks balance. The suitability of excavated materials for re-use will be assessed as part of the proposed ground investigation works. All earthworks operations will need to be undertaken in accordance with BS6031:2009 and HE guidelines including DMRB Series 600 'Earthworks'.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated land and groundwater
ES Chapter 11 - Noise and Vibration	Precision rotating machinery at the PCC Site will be monitored and maintained to minimise operational noise as far as reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of noise and vibration (operational)
ES Chapter 11 - Noise and Vibration	Method statements regarding construction management, traffic management, and overall site management will be prepared in accordance with best practice and relevant British Standards, to help to reduce as far as reasonably practicable noise impacts of construction works on local residents as far as reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Chapter 11 - Noise and Vibration, ES Appendix 5A - Framework CEMP	Regular communication with the local community throughout the construction period will also serve to publicise the works schedule, giving notification to residents regarding periods when higher levels of noise may occur during specific operations, and providing lines of communication where complaints can be addressed.	DCO Schedule 2 (Document Ref. 2.1): Requirement 29: Local Liaison Committee
ES Chapter 11 - Noise and Vibration	A detailed noise and vibration assessment will be undertaken once the Appointed Contractors is appointed in order to identify specific noise and vibration mitigation measures for the Proposed Development (including construction traffic). The Final CEMP will set out provisions to ensure that the noise and vibration impacts relating to construction activities are reduce as far as reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of noise and vibration (construction)

Reference / Chapter	Commitment	Secured by
ES Chapter 11 - Noise and Vibration	If any Unexploded Ordnance (UXO) is discovered its disposal will be carefully managed so that any use of explosives would occur with prior warning, at appropriate times of day and taking into account the proximity and sensitivity of nearby Noise Sensitive Receptors.	Draft DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management; and Condition 23 : UXO Clearance, Draft DCO Schedules 10 and 11 (Document Ref. 2.1): (Deemed Marine Licence: Project A and Deemed Marine Licence: Project B).
ES Chapter 11 - Noise and Vibration	During construction of the Proposed Development, night-time working will be limited so far as reasonably practicable, to reduce impacts on residential receptors.	DCO Schedule 2 (Document Ref. 2.1): Requirement 20: Construction hours
ES Chapter 11 - Noise and Vibration	Noise levels will be reduced at source where practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction) DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Operation)
ES Chapter 11 - Noise and Vibration	At the detailed design stage, the existing noise model will be refined, and additional acoustic assessment will be undertaken in consultation with the designers to determine the most appropriate mitigation options. The findings of the further assessment will inform the design such that rating levels meet with a target of no greater than +5 dB above the representative background sound level at each Noise Sensitive Receptor, resulting in a low magnitude of impact and a minor adverse effect at worst. Boundary noise levels will be proposed based on the noise limits required at the sensitive receptors.	DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction) DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Operation)
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	Monitoring requirements to track compliance with commitments to avoid and reduce, where practical, significant adverse effects on ecological features during construction phase will be set out in the Final CEMP. In particular, an Ecological Clerk of Works (ECoW) will be appointed to oversee the delivery of all	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity

Reference / Chapter	Commitment	Secured by
	identified mitigations. Habitat monitoring may also be needed for a defined period during operation to measure and confirm successful establishment and management of the committed measures. The need for such monitoring will depend on the final selection of construction locations and methods, and therefore this will be detailed in the final Landscape and Biodiversity Strategy.	
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	The final construction and habitat reinstatement approach would be agreed with Natural England before commencing work, consistent with the formal assenting process for operations that might affect a SSSI.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	All grassland areas will need to be reinstated, and consideration will be given on a case by case basis (once final construction route alignments have been selected) as to whether reinstatement is essential to meet biodiversity objectives.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	Comparable scrub habitats will be reinstated to an appropriate condition after construction, before returning the land to the landowner. The only exception to this would be if the landowner (which is not the Applicants) brings forward development proposals for the relevant area of land that prevents reinstatement. In these circumstances, decisions on any requirement for, and the location of, replacement plantings will be made by the landowner with reference to their masterplan for the Teesworks site.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	All temporary losses of grassland for temporary construction laydown will be reinstated in accordance with the requirements of the relevant landowner (see Chapter 12, ES Volume I, Document Ref. 6.2)	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity

Reference / Chapter	Commitment	Secured by
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	The extent of scrub habitat loss, all of which is comprised of a limited suite of common tree and shrub species, will be determined when construction working requirements are finalised and will be covered by measures in the final Landscape and Biodiversity Strategy.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	Open Mosaic Habitats on Previously Developed Land - in the Natural Gas Connection Corridor construction works in this area will necessitate temporary ground disturbance only and will be constrained to a corridor approximately 1.4 km long and no more than 35 m wide (approximately 5 ha, out of 308 ha mapped for wider Seal Sands). Construction will involve fencing off the works area, stripping and storing overburden, excavating a trench and storing subsoil, laying and welding pipe sections together at grade level (pipe stringing), laying pipe in the trench, re-instating drainage, and then backfilling subsoil, reinstating overburden. Given the presence of Open Mosaic Habitat, no sowing will be undertaken and instead reinstatement of vegetation would be left to natural processes.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction environmental management plan DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	The agreed Indicative Landscape and Biodiversity Strategy will be implemented in full and such works will continue until ecological monitoring has demonstrated that the objectives of the strategy have been achieved and this has been signed off with Natural England.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	Reinstatement of habitats subject to temporary disturbances during construction will also be provided, as required NPS EN-4 and other relevant planning policy.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscaping and biodiversity

Reference / Chapter	Commitment	Secured by
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	All buildings requiring construction-related demolition works would be reassessed for their suitability for use by roosting bats. This assessment, and any follow-on survey requirements to determine presence/absence of bat roosts, would be made by appropriately experienced ecologists at an appropriate time prior to commencement of demolition planning. If bat roosts are found through the above work, then a Bat Low Impact Class Licence or a European Protected Species Mitigation Licence (depending on the magnitude of the bat constraint identified) would be applied for from Natural England to permit demolition works to proceed. Demolition would only proceed once all necessary licences were in place, and associated mitigation requirements (e.g. provision of replacement roosts) have been met.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	To protect common lizards the following actions will be followed: • a tool box talk would be given to clarify the legal protections afforded and to reinforce the role of the ECoW in leading on the measures required to deliver compliance with the relevant legislation; • arisings from vegetation clearance and construction material will not be stored in a manner that might risk them being used as a place of refuge by common lizard. The ecologist will confirm requirements for risk avoidance once working areas are defined; • construction working areas will be appraised by the ecologist for their potential to support common lizard and working requirements advised case by case;	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species

Reference / Chapter	Commitment	Secured by
	• vegetation disturbance and removal will be undertaken from mid-April to October to coincide with the period when common lizard is likely to be active and able to disperse away from works areas; • removal of areas of suitable dense vegetation will involve incremental strimming to allow opportunity to find and displace/capture any common lizards present; • any common lizards found within construction areas will be removed by an ecologist to a nearby place of safety outside construction areas. The ecologist will attend site prepared for the potential for these species to occur, and will have a suitable means to transport any reptiles found (e.g. bucket with sealable lid); and • a record will be kept on the numbers and locations of reptiles found during the restoration works.	
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	All excavations associated with both the PCC and the connection corridors will be covered overnight, or where this is not practicable, a means of escape will be fitted e.g. battered soil slope or scaffold plank, to provide an escape route should any animals stray into the construction site and fall into an excavation.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Chapter 12 - Terrestrial Ecology and Nature Conservation; ES Appendix 9C: WFD	An invasive non-native plant survey will be undertaken prior to construction to re-determine the current location and extent of invasive plant stands and, based on this, confirm the need for and detail of the Invasive Species Management Plan (ISMP). If required, the ISMP will accompany the Final CEMP and would be agreed with relevant stakeholders. The ISMP will specify the measures and supervision necessary during construction to prevent the spread of the	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species

Reference / Chapter	Commitment	Secured by
	relevant controlled weed species to new locations. In compliance with legal requirements, effective mitigation measures will be applied to prevent the importation, export, or spread within the Site of propagules of controlled weeds beyond the immediate construction working area occupied by these species.	
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	Protected species will be safeguarded during construction site clearance in accordance with applicable legal requirements for animal welfare. A programme of common lizard displacement and/or capture and relocation (as appropriate with reference to the habitat conditions present along the final route corridor) is considered necessary prior to commencement of construction within Coatham Sands.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 12 - Terrestrial Ecology and Nature Conservation	An ECoW will be appointed to supervise and instruct implementation of ecological impact avoidance commitments during construction. All construction works affecting terrestrial habitats suitable for great crested newt would be subject to a Precautionary Working Method Statement (PWMS) approach supervised by an ECoW. A draft PWMS will be provided with the ES. This would be reviewed, updated and agreed with stakeholders prior to the start of construction. Precautionary working methods will also be adopted to manage any residual risk of protected and invasive species being encountered e.g. to address residual issues associated with great crested newt and common lizard. Habitat monitoring may also be needed for a defined period during operation to measure and confirm successful establishment and management of the committed measures. The need for such monitoring	Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	will depend on the final selection of construction locations and methods, and therefore this will be detailed in the final Landscape and Biodiversity Strategy which will be agreed later during discharge of the relevant Requirement in the DCO.	
ES Chapter 12 - Terrestrial Ecology and Nature Conservation, ES Chapter 13 - Aquatic Ecology, ES Chapter 15 - Ornithology, ES Appendix 5A - Framework CEMP	Immediately prior to site clearance and the start of construction in each relevant part of the Site, further site walkover surveys will be undertaken by an ecologist to confirm whether the identified risks remain as previously assessed and/or to confirm the correct implementation of impact avoidance measures (e.g. protected species stand-offs). The scope of the required walkovers would be defined on a case by case basis, in consultation with the project team and the local authority or other relevant statutory consultees as necessary, based on the specific risks. Relevant site staff will receive toolbox talks on the ecological risks present, relevant legal requirements and working arrangements necessary to comply with such legislation. Toolbox talks would be repeated as necessary over the duration of the relevant works.	Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 12 - Terrestrial Ecology and Nature Conservation; ES Appendix 12G; ES Appendix 5A - Framework CEMP	To protect water voles, the following actions will be followed: • An existing 5m stand-off zone between the existing pipeline racks and the watercourses identified in the Riparian Mammal Report update [REP5-029] will be retained during construction to remove construction encroachment into water vole habitat. • Based on the results of pre-construction surveys for protected species, an appropriate Water Vole Avoidance Strategy will be prepared with reference to the most recent survey data, it will set out the	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	measures and supervision required to deliver legislative compliance during construction, as stated in the CEMP.	
ES Chapter 13 - Aquatic Ecology	Where there is the need to work above a watercourse (Belasis Beck for the installation of the CO_2 Gathering Network for instance), this will be limited to very short stretches where the watercourse is already culverted under existing infrastructure. No work will be undertaken above open sections of watercourses.	Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 14 - Marine Ecology and Nature Conservation, ES Appendix 9C: WFD Assessment	All project vessels shall adhere to the International Convention for the Control and Management of Ships' Ballast Water and Sediments with the aim of preventing the spread of marine Invasive and Non-Native Species (INNS). All project vessels shall adhere to the International Maritime Organisation (IMO) Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines).	International Convention for the Control and Management of Ships' Ballast Water and Sediments (2017)
ES Chapter 14 - Marine Ecology and Nature Conservation	If UXO are discovered in the marine environment, the mitigation proposed will replicate that already identified in conditions 23 of Schedules 10 and 11 of the DCO.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan and Condition 23 : UXO Clearance DCO Schedules 10 and 11 (Document Ref. 2.1):
ES Chapter 14 - Marine Ecology and Nature Conservation, ES Chapter 12 - Terrestrial Ecology and Nature Conservation, ES Chapter 20 - Socio economics and Tourism	If required, trenchless technologies shall be used to install the gas (fuel) connection and CO_2 Gathering Network pipelines across the River Tees in order to minimise disturbance to riverine habitats and species Trenchless technologies would be used to install the CO_2 Export Pipeline and Water Discharge Corridor across the foreshore to minimise disturbance to benthic habitats and species.	Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 2a Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 5 Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design – Work No. 6 DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species

Reference / Chapter	Commitment	Secured by
	Permanent habitat losses associated with pipelines will also be minimised through use of existing rack systems (e.g. as already present at Saltholme and Seal Sands) and compliance with the requirements of NPS EN-4. The latter requires post-construction reinstatement of pipeline routes as close to its original state as practical.	
ES Chapter 14 - Marine Ecology and Nature Conservation	Pre-construction sediment contamination testing shall be carried out in consultation with the MMO to identify whether there is potential for direct effects to marine water quality (and therefore subsequent indirect effects to marine ecology) and to allow opportunity to avoid or mitigate any adverse impacts.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species
ES Chapter 14 - Marine Ecology and Nature Conservation	Activities that generate impulsive underwater sound within the marine environment (i.e. UXO detonation) shall not be undertaken at night.	DCO (Document Ref. 2.1) Schedule 2: Requirement 15: Protected Species, Condition 23: UXO Clearance, Schedules 10 and 11,
ES Chapter 14 - Marine Ecology and Nature Conservation	All Project vessels shall comply with the International Regulations for Preventing Collisions at Sea (1972) and regulations relating to International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78) with the aim of preventing and minimising pollution from ships. All project vessels shall be required to have a contingency plan for marine oil pollution (Shipboard Oil Pollution Emergency Plan).	International Regulations for Preventing Collisions at Sea (1972) International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78)
ES Chapter 14 - Marine Ecology and Nature Conservation	Conditions 23 of the draft Marine Licences provides a method for the proposed removal or detonation of UXO. Condition 23 requires that a UXO clearance methodology must be submitted to and approved in writhing by the MMO and must include the following -	DCO (Document Ref. 2.1) Schedule 2: Condition 23 UXO Clearance, Schedules 10 and 11,

Reference / Chapter	Commitment	Secured by
	A methodology for the identification of potential UXO targets, a methodology for the clearance of magnetic anomalies or otherwise which are deemed a UXO risk, information to demonstrate how best available evidence and technology has been taken into account in formulating the methodology, a debris removal plan, a plan highlighting the area(s) within which clearance activities are proposed, details of engagement with other legitimate users of the sea, a programme of works and a Marine Mammal Mitigation Protocol (MMMP) with the intention of preventing auditory or other injury to marine mammals, informed, as required by the MMO Marine Conservation Team.	
ES Chapter 15 - Ornithology	If Schedule 1 bird species are found breeding within or next to the proposed development site, works will stop immediately, and the local authority and Natural England would be informed. Site and species-specific exclusion zones around breeding sites would be required to avoid disturbance at the breeding location(s) and these would be agreed, under advisement from a suitably experienced ornithologist, between the ECoW, the local authority and/or Natural England;	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 15 - Ornithology	A habitat reinstatement and aftercare strategy will be set out in the outline Landscape and Biodiversity Strategy.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity
ES Chapter 15 - Ornithology	The following measures will be implemented to restore habitats used by birds to their pre-works condition and extent: • Planting new areas of flower-rich grassland and native scrub within the PCC to compensate for	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity

Reference / Chapter	Commitment	Secured by
	permanent losses of these habitats during construction; and • Reinstatement of habitats subject to temporary disturbance such as those within the temporary construction and laydown compounds.	
ES Chapter 15 - Ornithology	All clearance of suitable vegetation during site preparation would be undertaken outside the breeding season for nesting birds (typically March-August inclusive for most species), where practical. In situations where this is not practical, an ecologist would check the working 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 vegetation clearance works within the area until any young had fledged.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 15 - Ornithology	Working areas will be the minimum size required for construction to proceed efficiently and safely and so that habitat losses are minimised. Semi-natural habitats that are adjacent to working areas will be sectioned off with an appropriate form of fencing to prevent accidental damage to them during construction. Where works are required in sensitive habitats the Final CEMP will include a method statement setting out a method of work to protect biodiversity; to minimise the footprint of the working area and to restrict access routes to and from the working area such that the highest value or most vulnerable areas of habitat avoided wherever practical, and so that the most sensitive areas with respect to nesting, roosting and feeding birds are protected from	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	damage; and specifications for the strategic use of track matting in sensitive habitats to minimise impacts of semi-natural habitat.	
ES Chapter 15 - Ornithology	Any buildings that need to be demolished to permit construction of the Proposed Development will be reassessed for the presence of barn owl. This assessment, and any follow-on survey requirements to determine presence/absence of barn owls, would be made by appropriately experienced ecologists within a suitable timeframe prior to commencement of demolition planning such that provisions can be made to exclude barn owls from potential roost and nest sites when they are not in use. If barn owls are present, the buildings will have to be left in situ and undisturbed until they are vacated voluntarily by the birds. Pre-demolition surveys should be carried out as far as reasonably practical in advance of the start date of any site clearance work, and outside of the breeding season (which for this species can be taken as March – September inclusive). It is recommended that surveys are carried out during the winter preceding the start of site clearance and that a further check is made no more than 24 hours ahead of the start of clearance works. If barn owls are absent the buildings should either be demolished or rendered inaccessible to barn owls immediately. It is recommended that at least two barn owl boxes should be erected on the side of one of the buildings in order to replace long term habitat losses like for like. The locations, number and specification of the boxes should be set out in the Landscape and Biodiversity Strategy for agreement with Natural England, along with a monitoring plan that runs	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	alongside any habitat and bird monitoring program that is established and agreed with Natural England as part of the strategy.	
ES Chapter 15 - Ornithology	Monitoring will also be provided for a defined period during operation to measure and monitor use of barn owl boxes and to monitor, post-construction, the success of committed landscape and biodiversity mitigation and enhancement measures within the Landscape and Biodiversity Strategy (including ongoing habitat use by birds in areas where measures have been put in place for them). Monitoring requirements and specifications would be discussed and agreed with Natural England as a pre-commencement requirement of the DCO.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species
ES Chapter 15 - Ornithology	Phasing of construction would be planned, where practicable, so that those activities with potential to disturb through noise or vibration, and those that would result in habitat losses, are carried out at a time of year when the likelihood of birds being present is minimised. This would require careful consideration given the wide range of ornithological receptors present and the year-round ornithological sensitivity of the area, the spatial extent of the Proposed Development and the multi-phase and multi-process nature of the Proposed Development.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 15 - Ornithology	Any works associated with construction of the proposed infrastructure that have the potential for significant noise or disturbance effects should not be undertaken during extreme weather conditions, especially where these coincide with spring tides or other extreme tide conditions, because SPA and other water birds are more likely to roost or seek shelter on land in such conditions.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Chapter 16 – Traffic and Transport	Traffic management measures would be implemented during the Proposed Development construction phase to minimise traffic impacts upon the local road network.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Chapter 16 – Traffic and Transport, ES Appendices 16B - Construction Worker Travel Plan, 5A - Framework CEMP	The Appointed Contractors will be required to prepare a CTMP and Construction Workers' Travel Plan (CWTP) and this will be secured by a Requirement of the draft DCO. These plans will be in accordance with the Framework CTMP and CWTP to be prepared and submitted with the DCO Application to manage the traffic impact of the Proposed Development	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Chapter 16 - Traffic and Transportation	Hazardous chemicals and wastes transported to/ from the Proposed Development Site, will be transported in fit for purpose vehicles in accordance with existing legal and regulatory duties.	European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR, 2019)
ES Chapter 16 - Traffic and Transportation	The Appointed Contractors will review options for the use of rail and water transport when sourcing construction materials. The Appointed Contractors will also review the use of rail travel for construction staff accessing the site using the existing Redcar British Steel railway station (currently suspended).	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Chapter 16 - Traffic and Transportation	HGV arrivals, including deliveries, will be managed as far as reasonably practicable, such that they are spread evenly over the day between the hours of 07:00 and 19:00. However, no HGV deliveries would be undertaken outside of core working hours, unless agreed with the relevant authority on a case by case basis.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Chapter 17 - Landscape and Visual Amenity	The design of the Proposed Development will seek to minimise adverse impacts on visual amenity through appropriate siting of infrastructure including materials	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design

Reference / Chapter	Commitment	Secured by
	and colours (in line with EN-1, EN-2, N1, SD8). Suitable materials will be used, where reasonably practical, in the construction of structures to reduce reflection and glare and to assist with breaking up the massing of the buildings and structures. The selection of finishes for the buildings and other infrastructure will be informed by the finishes of the adjacent developments in order to minimise the visual impact of the Proposed Development.	
ES Chapter 18- Cultural Heritage	As the design of the Proposed Development further progresses and during the detailed design process of the of the Proposed Development, where reasonably practicable, efforts will be made to avoid impact upon cultural heritage assets and their setting by routeing connections to avoid known heritage assets;	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design DCO Schedule 2 (Document Ref. 2.1): Requirement 14: Archaeology
ES Chapter 21- Climate Change	Aspects of GHG emissions will be managed through the Final CEMP to help minimise any impact on the environment through relevant regulations, industry good practice and specific measures as described in this ES.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 21- Climate Change	Climate change influence expected flows will be accommodated in the design of drainage infrastructure to ensure appropriate storage for anticipated changes in future flows (e.g. in attenuation ponds in the surface water drainage system).	DCO Schedule 2 (Document Ref. 2.1): Requirement 11: Surface and foul water drainage
ES Chapter 21- Climate Change	Development of the Final CEMP and the Surface Water Maintenance and Management Plan that will detail measures to maintain Site drainage systems.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Chapter 22 - Major accidents & natural disasters	Diesel fuel, urea solution/aqueous ammonia, sulphuric acid and fresh/dilute and waste amine based solutions will be stored in dedicated above ground bulk tanks	

Reference / Chapter	Commitment	Secured by
	mounted within containment bunds, to contain spillages.	
ES Chapter 22 - Major accidents & natural disasters	Design and operational controls will be put in place to manage the risks associated with the smaller inventories of the above hazardous substances including use of dedicated bunded above ground storage areas, segregation of incompatible materials, dedicated filling points and management procedures for the handling, storage and use of the materials.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents and Natural Disasters	Specialist UXO clearance surveys will be undertaken as part of all future below ground works. Onsite UXO risks will be managed in accordance with the Construction Industry Research and Information Association (CIRIA): guidance document: Assessment and management of unexploded ordnance risk in the marine environment (C754) (CIRIA, 2016). Firstly, by conducting a detailed desk based risk assessment and then, if required, by on-site risk management, including a geophysical survey.	
ES Chapter 22 - Major accidents & natural disasters	A number of design philosophies will be prepared with regard to process safety and safeguarding, isolation, emergency shutdown and if required, depressurisation. The design engineers will also review the layout and give due consideration both to the on-Site location of facilities as well as the off-Site receptors. The following embedded mitigations and design impact avoidance measures will be in place for the operational Proposed Development to manage the risk of major accidents and hazards arising from it: • A Hazard Identification study (HAZID) has already been completed for the Proposed Development to identify hazards associated with the operation of the Proposed Development and seek to design out	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design

Reference / Chapter	Commitment	Secured by
	these hazards through the Front End Engineering Design studies; • A Hazard and Operability study (HAZOP) will be undertaken on the basis of design to systematically evaluate the potential hazards and how they are prevented, minimised or controlled; • If required, a COMAH licence will be applied for and held for the storage of any qualifying hazardous substances; • Major accident assessments and studies will be prepared over the course of the design development and a Major Accident Prevention Plan (MAPP) will be prepared to inform the application for COMAH Licence, if required for the operational facility. The Construction (Design and Management) Regulation (CDM) Regulations 2015 will be followed as required; • The Environmental Permit ; and • A design hazard management plan will be prepared	
ES Chapter 22 - Major accidents & natural disasters	Consultation with relevant parties will occur to agree on/inform mitigation and emergency response arrangements as part of final route selection and detailed design as well as understanding the condition of these pipelines and the potential for failure due to cold temperatures.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	Design of the natural gas systems will be to recognised industry codes and standards.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	Detailed emergency plans will be produced for the site and pipeline corridors in accordance with the Environmental Permit and all applicable Regulations.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design

Reference / Chapter	Commitment	Secured by
ES Chapter 22 - Major accidents & natural disasters	Detailed standards and codes of practice written specifically for the design and operation of dense phase or supercritical CO_2 plant and pipelines are still being developed, therefore industry codes and standards for gas and chemical pipelines will be applied where appropriate.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	Security measures will be installed at the PCC and along pipeline routes, including site security, CCTV and fencing to prevent intruders and cyber security measures to prevent hacking. Security advice for high hazard sites is provided within a documents published by the National Counter Terrorism Security Office and Association of Chief Police Officers (NaCTSO, 2014) as well as the Centre for the Protection of National Infrastructure (CPNI) https://www.cpni.gov.uk/resources	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	Appendix 9A: Flood Risk Assessment (ES Volume III, Document Ref. 6.4) will be used to inform the detailed design of the Proposed Development in terms of surface water management and selection of finished floor levels.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation
ES Chapter 22 - Major accidents & natural disasters	Electrical equipment such as transformers and switchgear are to be located above predicted flood levels.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	The development will use suitably experienced and competent contractors, risk assessments, working method statements, operating procedures, competency assessment and personnel training.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: CEMP
ES Chapter 22 - Major accidents & natural disasters	The engineering design of the Proposed Development will include appropriate electrical earthing and bonding systems. The design and maintenance of these	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design

Reference / Chapter	Commitment	Secured by
	systems will reduce the likelihood of a major accident being initiated by a lightning strike to a very low level. Guidance is provided by the HSE on the management of potential ignition caused by lightning (HSE, 2014).	
ES Chapter 22 - Major accidents & natural disasters	The engineering design will take into account the predicted ambient temperatures and wind speeds over the operational lifecycle of the Proposed Development. This includes consideration of suitable materials of construction and the design of utility systems such as cooling water.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	Where the CO_2 Export pipeline or other connections run close to the existing gas pipelines coming on shore at Coatham Sands, additional measures such as thickened pipe walls would be used where appropriate	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 22 - Major accidents & natural disasters	The risk of earthquakes will be taken into consideration during the civil and structural engineering design, which will utilise the appropriate design codes and standards.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design
ES Chapter 23 - Population and human health	The choice and design of plant and equipment will consider standard industry guidelines set to protect human health, including construction workers and operational staff and relevant ELV (Emission Limit Values) requirements specified in the Industrial Emissions Directive (IED)(European Parliament, 2010), or, if tighter, the LCP BRef (Large Combustion Plants). During the detailed design of works for the electricity connection corridor, potential electromagnetic interference effects would be identified and mitigated though the application of electromagnetic compatibility industry accepted practice.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design

Reference / Chapter	Commitment	Secured by
	In accordance with good safety management principles, risks due to EMF from relevant sources including the substation and electrical connections (above or below ground) will be reduced using the 'as low as reasonably practicable' (ALARP) principle. EMF exposure to workers and operational staff will be addressed as part of this assessment. Measures for the protection of workers from potential EMF effects will therefore include engineering and administrative controls, personal protection programmes, and medical surveillance in accordance with the relevant legislation and guidance. In particular, appropriate protective measures will be implemented if exposure in the workplace is predicted to result in the basic restrictions set out within ICNIRP Guidelines (1988) being exceeded	
ES Appendix 16A - Transportation Assessment	A Construction Worker Travel Plan will be produced. The Appointed Contractors will be required to prepare a Construction Traffic Management Plan which will identify measures to control the routing and impact that HGVs will have on the local road network during construction.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Worder Travel Plan
ES Appendix 16A - Transportation Assessment	All large modular plant and components for the Low-Carbon Electricity Generating Station will be imported using the facilities at the Redcar Bulk Terminal (RBT) (see Section 5.3 in Chapter 5, Construction Programme and Management, ES Volume I, Document Ref. 6.2 for more details). AILs weighing less than 100 tonnes may also be brought in through Teesport. In addition, Teesport will used to import containerised plant or components which would then be moved to the Site using HGVs via	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan

Reference / Chapter	Commitment	Secured by
	Tees Dock Road and the internal Teesworks road network north of Lackenby Steelworks.	
ES Appendices 16A - Transportation Assessment, 16C- Framework CTMP	All construction HGVs will access the site via the Tees Dock Road and the internal site road networks. HGV deliveries associated with pipeline construction will be directed to the relevant temporary construction compound.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendix 16A - Transportation Assessment	All construction workers associated with the construction of the PCC and associated connections, and those pipeline workers working to the south of the River Tees will access the Site via the existing entrance located at the A1085 / West Coatham Lane Roundabout	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendix 16A - Transportation Assessment	Construction compound access points to the connections north of the Tees will be provided and include: • Access 1 Seal Sands Road – Navigator Terminals • Access 2 Seal Sands Road – INEOS • Access 3 A178 Seaton Carew Road • Access 4 A1185 (south of Saltholme Substation access) • Access 5 Nelson Avenue • Access 6 A1046 Haverton Hill Road • Access 7 Cowpen Bewley Road	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendix 16B - Construction Worker Travel Plan	The Appointed Contractors would be encouraged to set up and manage a car share scheme for their workers. In emergencies, the Travel Plan Co-ordinator would provide a guaranteed lift home for car sharers e.g. by use of taxi. The provision could be extended for emergency situations for staff that cycle to the Site.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan

Reference / Chapter	Commitment	Secured by
	secure parking for bicycles would be provided. Construction staff that cycle to work would also have access to shower and changing facilities and lockers to store clothing, cycle helmets etc. Information about all available forms of public passenger transport including routes and destinations, service frequencies and locations of nearest bus stops shall be provided in an information pack and sent to construction workers prior to them starting work at the Site. Public transport information would also be displayed on the travel information boards. It will be the responsibility of the Travel Plan Co-ordinator to ensure that this information is kept up to date.	
ES Appendix 16B - Construction Worker Travel Plan	The Travel Plan Co-ordinator will monitor the total number of construction workers on-site and the number of parking spaces provided to performance manage car occupancy targets. It is anticipated that monitoring will be undertaken on one day per month throughout construction. Ensuring that this target is met is dependent on the Appointed Contractors encouraging its workers to travel to and from the Site by the sustainable options provided in the final CWTP. If monitoring finds that the target is not being met, this will result in the implementation of additional measures as appropriate to help the CWTP stays on course to meet its overall objectives.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendices 16B - Construction Worker Travel Plan, 5A - Framework CEMP, 16B - Construction Worker Travel Plan	The Appointed Contractors will be required to appoint a Travel Plan Co-ordinator to manage and deliver the Travel Plan. The Travel Plan Co-ordinator's details would be supplied to RCBC and Highways England. The Travel Plan Co-ordinator would work closely with the Site Manager, who has overall responsibility for the	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan

Reference / Chapter	Commitment	Secured by
	Site, and thus has the authority to introduce measures for those workers who do not follow the guidelines.	
ES Appendix 16B - Construction Worker Travel Plan	A surfaced area will be set aside within the Site to accommodate parking for construction workers.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendix 16C- Framework Construction Traffic Management Plan	A formal process of liaison between all relevant parties (Appointed Contractors, Redcar and Cleveland Council Highways, Stockton-on-Tees Highways and Highways England) is proposed. It is proposed that a short-written report is prepared on behalf of the contractor on a six-monthly basis and circulated to all key stakeholders. Any comments generated by the report will be circulated to all key stakeholders and a meeting may be held if required.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendix 16C- Framework Construction Traffic Management Plan, 5A - Framework CEMP	Advance warning signage will be erected on the public highway prior to the temporary construction compound site entrances associated with the pipeline construction. The Appointed Contractors will be required to erect signage at the main junctions to ensure that all HGV traffic relating to the Proposed Development travel in the appropriate directions. Local road signage for construction traffic will be provided. The Appointed Contractors will be required to maintain all signage.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendices 5A - Framework CEMP, 16B - Construction Worker Travel Plan	All construction workers will receive an introductory meeting on the travel plan when they commence work, incorporated into the Site safety briefing. It will include details of sustainable transport measures available for accessing the Site and parking arrangements.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendix 5A - Framework CEMP	A Pollution Response Plan, secured as part of the Final CEMP, will be implemented prior to the commencement of construction works. The plan will outline key pollution mitigation measures to be	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	adopted including a COSHH / fuel inventory and key contacts to be notified in the event of a significant pollution incident, which may subsequently lead to the contamination of controlled waters or soils.	
ES Appendix 5A - Framework CEMP	An Asbestos Management Plan (AMP) will be prepared and appended to the Final CEMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	An important part of the monitoring strategy would be obtaining feedback from construction workers, Redcar and Cleveland Borough Council, Stockton-on-Tees Borough Council and local residents regarding any issues with construction worker traffic. The appointment of a Travel Plan Co-ordinator will ensure that an appropriate point of contact is available and can react to such feedback.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Construction workers will be given the chance to offer their suggestions and ideas via a suggestion box/an informal discussion with the Travel Plan Co-ordinator. while review meetings will be held at regular intervals to ensure any issues are resolved.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP, ES Chapter 10 - Geology, Hydrogeology and Land Contamination, ES Appendix 9C - WFD Assessment	An Emergency Spillage Action Plan secured as part of the Final CEMP, will be produced, which staff will be required to read and confirm that they understand, and provisions made to contain any leak/spill. Best practice measures will be adopted during construction to prevent or reduce as far as reasonably practicable spillage risk and spillage effects by adhering to the Final CEMP. The Final CEMP shall address the management of concrete batching, concrete usage and accidental spillage relating to foundation and building construction.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A - Framework CEMP	Information about all available forms of public passenger transport including routes and destinations, service frequencies and locations of nearest bus stops shall be provided in an information pack and sent to construction workers prior to them starting work at the Site. Public transport information would also be displayed on the travel information boards. It will be the responsibility of the Travel Plan Co-ordinator to ensure that this information is kept up-to-date.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendix 5A - Framework CEMP	The Final CEMP will be produced in line with the framework CEMP following receipt of development consent and would be agreed with RCBC and STBC in advance of starting preliminary works on Site. STDC will also be invited to review and comment on the Final CEMP. The Final CEMP will identify how commitments made in the ES will be translated into actions on Site and includes a schedule for implementing the actions through allocation of key roles and responsibilities	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The Final CEMP will include as a minimum: • a code of construction practice, specifying measures designed to minimise the impacts of construction works; • a scheme for the control of any emissions to air; • a soil management plan; • a sediment control plan; • a scheme for environmental monitoring and reporting during the construction of the authorised development, including measures for undertaking any corrective actions; and • a scheme for the notification of any significant construction impacts on local residents and for handling any complaints received from local residents	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	relating to such impacts during the construction of the authorised development.	
ES Appendix 5A - Framework CEMP	The Appointed Contractors will be responsible for working in accordance with the environmental controls documented in the Final CEMP. The overall responsibility for implementation of the Final CEMP will lie with the Applicants.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Appropriate standard and best practice control measures for NO_2, PM_{10} and particulates and deposited dust from soil and spoil movements and handling will be included in the Final CEMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Good practice will be employed for the siting and operation of non-road mobile machinery to control associated emissions.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The Appointed Contractors will comply with relevant Good Practice Guidance documents, to be detailed in the Final CEMP and a Maintenance and Management Plan approved by the relevant planning authority (following consultation. The Appointed Contractors will be required to train construction staff so that they are fully aware of the potential impact to water resources associated with the construction works and procedures to be followed in the event of an accidental pollution event occurring. This would be included in the site induction and training, with an emphasis on procedures and guidance to reduce the risk of water pollution.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Fine Sediment: Measures will be taken to prevent the deposition of fine sediment or other material in any existing waterbody, arising from construction activities. this will be taken in accordance with the principles set out in industry guidelines	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	including the CIRIA report 'C532: Control of water pollution from construction sites'.	
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: All chemicals would be stored in accordance with their relevant COSHH guidelines, whilst spill kits will be provided in areas of fuel/oil/minor chemicals storage.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Any plant, machinery or vehicles will be regularly inspected and maintained to confirm that they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off site if practical or only at designated areas within the Site compound. Only construction equipment and vehicles free of all oil/ fuel leaks will be permitted on site. Drip trays will be placed below static mechanical plant.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: The mixing and handling of construction materials would be undertaken in designated areas and away from surface water drains.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Exposed ground and stockpiles would be protected as appropriate and practicable to prevent windblown migration of potential contaminants. Water suppression would be used if there is a risk of fugitive dust emissions.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001. Particular care will be taken in accordance with industry standards with the delivery	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	and use of concrete and cement as it is highly corrosive and alkaline.	
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Surface water drains on roads or within the construction compound will be identified and, where there is a risk that fine particulates or spillages could enter them, the drains will be protected (e.g. using covers or sandbags).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against baseline conditions and can be dealt with effectively.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: Topsoil and other construction materials will be stored outside of the 1 in 200 year floodplain extent and only moved to the temporary works area immediately prior to use.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: Connectivity will be maintained between the floodplain, the River Tees and Greatham Creek.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: If water is encountered during below ground construction, suitable de-watering methods will be used. Any significant groundwater dewatering required will be undertaken in line with the requirements of the Environment Agency (under Water Resources Act 1991 as amended and Environmental Permitting Regulations).	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A - Framework CEMP	Flood Risk: Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: Construction works undertaken adjacent to watercourses would comply with relevant guidance during construction, including the Environment Agency GPP Agency's Guidance for Pollution Prevention.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: When working in Flood Zones 2 and 3 at least one designated Flood Warden would be appointed who is familiar with the risks and remains vigilant to news reports and Environment Agency flood warnings.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Flood Risk: The Final CEMP would incorporate measures aimed at preventing an increase in flood risk during the construction works.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	Management of Spillage Risk: Plant and machinery would be kept away from surface waterbodies wherever practical and would have drip trays installed beneath oil tanks/engines/gearboxes and hydraulics, which would be checked and emptied regularly. Refuelling and delivery areas would be located away from surface water drains.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	No part of the authorised development will commence, save for geotechnical surveys and other investigations for the purpose of assessing ground conditions, until a scheme to deal with the contamination of land, including groundwater, which is likely to cause significant harm to persons or pollution of controlled waters or the environment, has, for that part, been	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	submitted to and, after consultation with the Environment Agency, approved by the relevant planning authority.	
ES Appendices 5A - Framework CEMP, 9C - WFD Assessment	If during the course of the development any contamination is found which has not been previously identified, an appropriate risk assessment will be prepared. Any actions resulting from the risk assessment will be agreed with the Local Planning Authorities/ Natural England along with any remedial measures. Contamination assessment will be in accordance with the CIRIA C552 - Contamination Land Risk Assessment, A Guide to Good Practice and the Land Contamination Risk Management Guidance. These remedial measures will be adopted as part of the scheme.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Land disturbance will be reduced as far as is reasonably practicable and disturbed areas outside the footprint of the Proposed Development will be revegetated as soon as reasonably practicable after construction. Soil excavation will be undertaken with consideration given to the prevailing ground and weather conditions when programming the execution of the works to reduce the potential for mobilisation of exposed soil and / or sediment. Although not anticipated to be widely present, if encountered, topsoil and subsoil will be kept separately during excavation.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A – Framework CEMP, 9C – WFD Assessment	Only well-maintained plant will be used during construction to minimise the potential for accidental pollution from leaking machinery or damaged equipment. Static machinery and plant are expected to be stored in hardstanding areas when not in use and, where necessary, to make use of drip trays beneath oil tanks/ engines/ gearboxes/ hydraulics. Spill response	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	kits containing equipment that is appropriate to the types and quantities of materials being used and stored during construction will be maintained on Project Area site for the duration of the works. Mobile plant is to be in good working order, kept clean and fitted with drip prevention at all times.	
ES Appendix 5A – Framework CEMP	The Final CEMP will set out procedures for dealing with unexpected soil or groundwater contamination that may be encountered. This would typically require affected works to stop to enable appropriate people to be notified, and further characterisation and risk assessment to be undertaken, before remediation or mitigation proposals are agreed with all required stakeholders.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Specific mitigation measures may be required in the form of treating/ remediating any contamination encountered during construction (e.g. any contamination that may be associated with any potentially contaminative sites identified as part of the assessment, notably the landfills and areas of potentially infilled land). This will be confirmed based on information gathered through ground investigation.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	To minimise the effects on soil resources during any earthworks, including materials management, high standards of soil handling and management will be employed with a view to minimising where practical the double handling of soils and the extent to which exposed soils will be left vulnerable to erosional processes.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	To avoid a bore failure during HDD operations, the measures proposed in the CEMP regarding the design	DCO (Document Ref. 2.1) Schedule 2: Requirement 3: Detailed design and Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	and planning of HDD operations will be used to inform the detailed design of these operations.	
ES Appendix 5A – Framework CEMP	The re-use of excavated materials during construction will be governed by either a Materials Management Plan developed in accordance with CL:AIRE (2007) and secured as part of the Final CEMP, an environmental permit or a relevant exemption.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	The disposal of soil waste, contaminated or otherwise, to landfill sites will be mitigated by minimisation of the overall quantities of waste generated during construction, and by ensuring that excavated material consigned to landfill cannot, as an alternative, be put to use either on the Proposed Development or on other sites.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Where there is a requirement to dispose of surplus excavated materials off site as waste, the material will be characterised to determine firstly whether it is Hazardous or Non-Hazardous waste in accordance with the Environment Agency's Technical Guidance WM3 and then once this is established, the appropriate disposal facility will be determined through Waste Acceptance Criteria (WAC) analysis, as required.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	All workers would be required to wear applicable Personal Protective Equipment (PPE).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Storage of Fuels, Oils and Chemicals: All storage of drums containing hazardous material will be located within the temporary construction compound. Any spillages or leaks will be dealt with promptly and all waste disposed of in an appropriate manner. All tanks, drums and other containers will be clearly marked as to their contents. Before any tank is removed or	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	perforated, all contents and residues will be emptied by a competent operator for safe disposal.	
ES Appendix 5A – Framework CEMP	Should any potentially contaminated ground, including isolated 'hotspots' of contamination and/or potential deposits of asbestos containing materials (ACM), be encountered, the Appointed Contractors would be required to investigate the areas and assess the need for containment or disposal of the material. The Appointed Contractors would also be required to assess whether any additional health and safety measures are required	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	To further minimise the risks of contaminants being transferred and contaminating other soils or water, construction workers would be briefed as to the possibility of the presence of such materials.	DCO Schedule 2 (Document Ref. 2.1): Requirement 13: Contaminated Land and Groundwater DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	In the event that contamination likely to cause harm or environmental impacts is identified, appropriate remediation measures would be taken to protect construction workers, future site users, water resources, structures and services.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Storage of Fuels, Oils and Chemicals: All valves, hoses and associated re-fuelling equipment will be regularly inspected to confirm that they are still in a suitable condition. Measures will be implemented to protect this equipment from vandalism and unauthorised interference and will be turned off and securely locked when not in use.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Storage of Fuels, Oils and Chemicals: Chemicals, fuels and oils will be stored in secure and designated storage areas in accordance with the appropriate regulatory requirements, including the Control of	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	Pollution (Oil Storage) (England) Regulations 2001 and COSHH Regulations 2002. Storage areas will need to be located on hardstanding areas to prevent the possible infiltration of contaminants into soils	
ES Appendix 5A – Framework CEMP	Storage of Fuels, Oils and Chemicals: The preparation of an inventory of all chemicals, fuels and oils will be kept up to date and be available on site. Spill contingency plans will be created for each of the items on the inventory. These will be supported by warning notices and appropriate spillage containment equipment and materials at key locations.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Storage of Fuels, Oils and Chemicals: Any staff involved in fuel handling will be given appropriate training, and site-specific procedures will be developed for all staff at the site. Workers will be made aware of their statutory responsibility under Section 85 of the Water Resources Act 1991 not to 'cause or knowingly permit' water pollution. In addition, they will be made aware of their statutory responsibility under Regulations 38(1) and 12(1) of the Environment Permitting Regulations 2016 not to 'cause or knowingly permit' a water discharge activity or groundwater activity without an environmental permit.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	No part of the authorised development will commence, save for the permitted preliminary works, until a scheme for the monitoring and control of noise and vibration during the construction of that part of the authorised development has been submitted to and approved by the relevant planning authority.	DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to abide by agreed construction noise limits at nearby Noise Sensitive Receptors.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
		DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to avoid working in the more sensitive evening and night times where practical.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to put processes are in place to minimise noise before works begin and that best practicable measures (BPM) are being implemented throughout the construction programme.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to use modern plant that complies with the latest noise emission requirements. Selection of inherently quiet plant where reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	Hydraulic techniques for breaking will be used in preference to percussive techniques where practical.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	Use of rotary bored piling will be used rather than driven piling techniques	DCO Schedule 2 (Document Ref. 2.1): Requirement 23: Piling and Penetrative Foundation Design DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	All plant and equipment being used for the works will be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)

Reference / Chapter	Commitment	Secured by
ES Appendix 5A – Framework CEMP	Screening will be utilised locally around significant noise producing plant and activities (e.g. HDD).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction) DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected species
ES Appendix 5A – Framework CEMP	All vehicles used on-Site for construction purposes will incorporate broadband reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will ensure all contractors are made familiar with current noise legislation and the guidance in BS 5228 (Parts 1 and 2)	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	Loading and unloading of vehicles, dismantling of site equipment such as scaffolding or moving equipment or materials within the Site boundary will be conducted in such a manner as to minimise noise generation as far as reasonably practicable.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to consult with the relevant local authority (RCBC and STBC) and local residents to advise of potential noisy works that are due to take place.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)
ES Appendix 5A – Framework CEMP	The Appointed Contractor will be required to monitor noise complaints and take rapid action to investigate any complaints received.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)

Reference / Chapter	Commitment	Secured by
ES Appendix 5A – Framework CEMP	Trenchless technologies will be utilised where reasonably practicable to minimise effects on habitats and species.	DCO Schedule 2 (Document Ref. 2.1): Requirement 3: Detailed Design DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Permanent habitat losses associated with pipeline construction for the project will be minimised through compliance with the requirements of NPS EN-4 (the requirement for post construction reinstatement of habitats).	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species
ES Appendix 5A – Framework CEMP	A Landscape and Biodiversity Strategy will be included within the DCO application. These documents, which will take account of the results of surveys completed in 2020 and will be agreed with Natural England.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	All construction works affecting terrestrial habitats suitable for great crested newt would be subject to a Precautionary Working Method Statement (PWMS) approach supervised by an EcoW.	DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Standard best practice prevention measures will be applied for the prevention of surface and ground water pollution, fugitive dust management and noise prevention or amelioration where relevant to ecology.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Pre-construction survey requirements and any measures required to comply with relevant protected species legislation, including attainment of necessary licences and permits will be outlined within the Final CEMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A – Framework CEMP	The Final CEMP will be accompanied by an Invasive Species Management Plan (ISMP) which would specify the measures and supervision necessary during construction to prevent the spread of the controlled weed species to new locations. An invasive non-native plant survey would be undertaken prior to construction to determine the current location and extent of invasive plant stands, and to inform specification of the ISMP.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	The following precautionary working methods would be employed to minimise potential adverse effects on protected/notable species prior to, and during, construction: • Precautionary working method statements would be produced to specify working requirements and other impact avoidance measures and would be controlled and implemented through the Final CEMP. • Where reasonably practicable, vegetation clearance works would be undertaken outside the bird breeding season, which is generally between March and August inclusive. Where this is not reasonably practicable, an ecologist would inspect all areas of vegetation prior to clearance, and clearance would only be undertaken subject to the instruction and requirements of the ecologist to protect any birds and their nests. • Cleared ground would be maintained in a disturbed state in the run-up to construction commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground. • Precautionary measures would be implemented to prevent trapping wildlife in construction excavations in order to comply with animal welfare legislation. All excavations deeper than 1m would be covered or fenced overnight, or where this is not practicable, a	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	means of escape would be fitted (e.g. battened soil slope or scaffold plank) to provide an escape route should any animals stray into the construction site and fall into an excavation.	
ES Appendix 5A – Framework CEMP	Standard best practice prevention measures will be applied for the prevention of surface and ground water pollution, fugitive dust management and noise prevention or amelioration (measures included in Tables 5A-1 to 5A-4 where relevant to aquatic ecology).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Biosecurity measures will be put in place to reduce the spread of invasive non-native species	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Appropriate techniques to be utilised to minimise water flow into trenchless excavations for the CO_2 Export Pipeline and the Discharge Corridor through the sand dunes and into the North Sea. Potential for disturbance of aquatic habitats and species associated with the Ponds at Coatham Dunes will be mitigated by the use of appropriate techniques to minimise water flow into excavations for the CO_2 Export Pipeline and the Discharge Corridor through the sand dunes and into the North Sea.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Underwater sound and visual disturbance management measures to be implemented are as follows: • The standard JNCC mitigation measures for explosives, piling and geophysical surveys (JNCC, 2010a; JNCC, 2010b; JNCC, 2017) shall be adopted during construction of the Proposed Development as appropriate.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 21: Control of Noise and Vibration (Construction)

Reference / Chapter	Commitment	Secured by
	• Activities that generate impulsive underwater sound within the marine environment (i.e. piling) shall not be undertaken at night. • Should any preparatory dredging be required, material shall be disposed of at a licensed marine disposal site. Disposal of dredged material would be undertaken in accordance with deemed Marine Licences that will be secured by the DCO.	
ES Appendix 5A – Framework CEMP	All clearance of suitable vegetation during site preparation would be undertaken outside the breeding season (typically March-August inclusive for most species), where reasonably practicable. In situations where this is not reasonably practicable, an ecologist would check the working area for nests before works commence. If nests were discovered, appropriate mitigation would be implemented to avoid disturbance or destruction before any works can commence in that area. This would include imposing exclusion zones between the works and nest(s) and suspending vegetation clearance works within the area until any young had fledged. If Schedule 1 species are found breeding within or next to the Proposed Development construction, works will stop immediately, and the local authority and Natural England would be informed. A licence may be required before works could continue.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Phasing of construction will be planned, where reasonably practicable, so that those activities with potential to cause noise and/or visual disturbance of receptors, and those that would result in habitat losses, are carried out at a time of year when the likelihood of birds being present is minimised.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A – Framework CEMP	Potential effects on barn owl will be avoided by siting infrastructure and working areas sensitively and by timing works where practicable to minimise disruption during the breeding season for this species (mid-March to the end of September as a minimum).	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A – Framework CEMP	Any works associated with construction of the proposed infrastructure that have the potential for significant noise or disturbance effects will not be undertaken during extreme weather conditions that coincide with spring tides or other extreme tide conditions, because SPA and other water birds are more likely to roost or seek shelter on land in such conditions.	DCO Schedule 2 (Document Ref. 2.1): Requirement 4: Landscape and biodiversity DCO Schedule 2 (Document Ref. 2.1): Requirement 15: Protected Species DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A – Framework CEMP, 16B – Construction Worker Travel Plan	The Travel Plan Co-ordinator will be responsible for monitoring the effectiveness of the Travel Plan and to refine the measures, where necessary, to cope with the changes in demand over the construction phase.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Worker Travel Plan
ES Appendix 5A – Framework CEMP	All AILs will be delivered via the Redcar Bulk Terminal and will be transported within the Teesworks internal road network.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A – Framework CEMP, 16B – Construction Worker Travel Plan	Details of the sustainable transport options available for accessing the Site would be provided in an information pack and sent to construction workers, prior to them starting work at the Site. This will raise awareness of the initiatives being implemented and also allow staff to register an interest in the schemes. The Appointed Contractors will be required to ensuring that all construction workers receive the information pack prior to starting work on Site.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendices 5A – Framework CEMP, 16C-Framework CTMP, Chapter 16 – Transport	HGV arrivals will be managed and spread evenly over the day between the hours of 07:00 and 19:00 to avoid on-site congestion unless agreed in exceptional circumstances (e.g. during concrete pouring) in advance with the local authority. The only deliveries outside these hours may be the delivery of Abnormal Indivisible Loads (AIL) from Redcar Bulk Terminal. Currently it is proposed that all deliveries of AILs will be during daytime hours but if required any noisy works outside the core working hours, including timing of AIL deliveries, would need to be agreed with the local planning authority on a case by case basis. A HGV routeing plan will be communicated to all drivers during their induction.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan DCO Schedule 2 (Document Ref. 2.1): Requirement 20: Construction Hours
ES Appendix 5A – Framework CEMP	Residents will be updated on the construction of the Proposed Development via a regular update bulletin posted on the Applicants' website and on the Council website if they elect to host this. This will include information on the timing and routing of AIL deliveries and a 24 hour contact name and number for members of the public to contact should they have any issues regarding construction traffic.	DCO Schedule 2 (Document Ref. 2.1): Requirement 29: Local Liaison Committee
ES Appendices 5A – Framework CEMP, Appendix 16C: Framework CTMP	The Appointed Contractors will be required to maintain gatehouse records of construction HGVs entering and leaving the Site and to make those records available to the Council on request.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendix 5A – Framework CEMP	The Final CEMP will provide final details of the designated routes for HGV movements and worked car movements.	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction Traffic Management Plan
ES Appendices 5A – Framework CEMP, Appendix 16C: Framework CTMP	A 24 hour contact name and number will be displayed on a notice board at the Proposed Development Site entrance, on the Applicants' website and on the	DCO Schedule 2 (Document Ref. 2.1): Requirement 18: Construction traffic Management Plan

Reference / Chapter	Commitment	Secured by
	Council website if they elect to, for members of the public to contact should they have any issues they wish to raise regarding construction traffic.	
ES Appendix 5A – Framework CEMP	All construction staff would be made aware of the measures included in the CWTP, so that benefits can be delivered and the number of car borne trips reduced by promoting car sharing, minibus use and public transport.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendix 5A – Framework CEMP	Construction workers will access the PCC Site and construction areas on the south bank from the main site entrance located off the A1085 / West Coatham Lane Roundabout. Construction workers on construction sites on the north bank of the Tees will access laydown areas in this area via the A1048, A1185, A178, B1275, Cowpen Bewley Road, Seaton Carew Road, and Seal Sands Road. On-site parking will be provided for construction worker's vehicles both north and south of the Tees.	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan
ES Appendix 5A – Framework CEMP	In the case of accidental emissions to water or land within the temporary laydown/ compound areas as a result of the construction of the Proposed Development, the appointed Contractor will remediate these areas to their condition identified in advance of construction.	DCO Schedule 2 (Document Ref 2.1): Requirement 13 (Contaminated Land and Groundwater) and 25 (Restoration of land used temporarily for construction)
ES Appendices 5A - Framework CEMP, 16B - Construction Worker Travel Plan	The Appointed Contractors would be encouraged to provide minibuses for transporting their workers from the key points of construction worker origin to the Site. This would have the benefit of reducing the number of vehicular trips on the local road network. The Appointed Contractors would encourage the use of common hotels and B&Bs by workers that are not from the local area, to encourage the use of shared	DCO Schedule 2 (Document Ref. 2.1): Requirement 19: Construction Workers Travel Plan

Reference / Chapter	Commitment	Secured by
	transport modes such as minibus. The Appointed Contractors would be requested to provide minibuses and to organise where the minibuses will pick up workers and at what times.	
ES Appendix 5A - Framework CEMP	A written archaeological investigation scheme will be developed after consultation with the relevant archaeological body, and approved by the relevant planning authority prior to the commencement of work on the authorised development. The scheme submitted and approved must be in accordance with Chapters 18 and 19 of the Environmental Statement (ES Volume I, Document Ref. 6.2). The scheme must identify any areas where further archaeological investigations are required and the nature and extent of the investigation required in order to preserve by knowledge or in-situ any archaeological features that are identified. The scheme must provide details of the measures to be taken to protect record or preserve any significant archaeological features that may be found. Any archaeological investigations implemented and measures taken to protect record or preserve any identified significant archaeological features that may be found must be carried out— (a)in accordance with the approved scheme. and (b)by a suitably qualified person or organisation approved by the relevant planning authority in consultation with relevant archaeological body unless otherwise agreed with the relevant planning authority.	DCO Schedule 2 (Document Ref. 2.1): Requirement 14: Archaeology
ES Appendix 5A - Framework CEMP	An appropriate archaeological mitigation strategy, for the identified impacts arising from construction, will be agreed (where practical) with the archaeological advisor to the local planning authority and, if applicable, Historic England.	DCO Schedule 2 (Document Ref. 2.1): Requirement 14: Archaeology

Reference / Chapter	Commitment	Secured by
ES Appendix 5A - Framework CEMP	Activities for the replacement of infrastructure that constitute marine licensable activities will be subject to the requirement of a Marine Licence from the MMO. During construction all conditions under the licence will be adhered to.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Any temporary closures or diversions of public rights of way (or otherwise) required during construction would be implemented in such a way as to maintain as much access as practical for users of these amenities due to their importance to local tourism.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The Appointed Contractors will be required to measure, monitor and report energy and water consumption and GHG emissions during construction.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The detailed CEMP will set out all roles, responsibilities and actions required in respect of implementation of the measures described in this Framework CEMP, including: • An organogram showing team roles, names and responsibilities; • Training requirements for relevant personnel on environmental topics; • Information on site briefings and toolbox talks that will be used to equip relevant staff with the necessary level of knowledge to follow environmental control procedures; • Measures to advise employees of changing circumstances as work progresses; • Communication methods; • Document control; and • Environmental emergency procedures.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A - Framework CEMP	The Appointed Contractors will be required to appoint a designated Environmental Site Officer(s), who will be present on Site throughout the construction process and when new activities are commencing. The Environmental Site Officer will observe site activities and report any deviations from the Final CEMP in a logbook, along with the action taken and general conditions at the time. The Appointed Contractors will be required to inform the Applicants of any deviations from the Final CEMP as soon as practical following identification of such issues. The Environmental Site Officer would also act as day-to-day contact with RCBC and STBC and other regulatory agencies such as the Environment Agency.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	During construction, the Environmental Site Officer will conduct daily walkover surveys to verify that all requirements of the Final CEMP are being met. Action from these surveys will be documented on an Environmental Action Schedule, discussed with the Site Foreman for programming requirements and issued weekly for actioning.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The Environmental Manager/ Project Manager will arrange regular formal inspections to verify that the requirements of the Final CEMP are being met. After completion of the works, the Environmental Site Officer will conduct a final review.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	Records: The Environmental Manager/ Project Manager will retain records of environmental monitoring and implementation of the Final CEMP. This will allow provision of evidence that the Final CEMP is being implemented effectively. These records will include:	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	• Environmental Action Schedule; • Licences, permits and approvals; • Results of inspections by Environmental Manager/ Project Manager; • Other environmental surveys and investigations; and • Environmental equipment test records. The CEMP will be updated as necessary, with a full review as required (at least quarterly) throughout the construction period. A brief report will be produced and submitted to RCBC and STBC at the end of each key activity shown in the construction programme and following completion of commissioning. This will summarise the monitoring process, observed deviations from the Final CEMP and the corrective actions taken.	
ES Appendix 5A - Framework CEMP	The Applicants will require the Appointed Contractors to ensure that an anti-social behaviour policy is adhered to by both HGV drivers and construction workers, and to reinforce this policy during the induction. This will include HGV drivers being made aware not to park on the public highway, with sanctions put in place to deal with non-conformance.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 5A - Framework CEMP, Appendix 16C: Framework CTMP	Monitoring will be undertaken by the Appointed Contractors to assess the effectiveness of the measures included in the final CTMP (to be approved by RCBC and STBC pursuant to a DCO Requirement) to control the routing and impact of construction HGVs. Monitoring will also provide a firm basis upon which to answer queries and complaints regarding the HGV traffic impact during construction.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 5A - Framework CEMP	Secure parking for bicycles will be provided. Construction staff that cycle to work would also have access to shower and changing facilities and lockers to store clothing, cycle helmets etc.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP, Appendix 16C: Framework CTMP	Should any complaints be raised by members of the public with regards to construction HGVs not using the dedicated HGV route to the Site, gatehouse records will be used to identify the offending HGV involved and appropriate sanctions put in place to avoid repeat events. The Appointed Contractors will be required to ensure that all HGV deliveries to the Site are instructed to use the designated route to access and egress the construction site.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 5A - Framework CEMP	The Appointed Contractors will be required to enforce the disciplinary procedure, “yellow/ red card system” or equivalent. In the first event of non-compliance, a warning will be issued to the HGV driver (yellow card). In the event of any repeat of the contravention, that driver will be prohibited from making further HGV deliveries to the Proposed Development Site (red card).	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 8A - Air Quality Construction	Appropriate mitigation measures for managing the construction dust risks will be set out in the outline CEMP and will be in accordance with the IAQM guidance. They will be formalised through the CEMP to be prepared by the Appointed Contractors.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9A - FRA	During the construction phase, the Appointed Contractors will observe pollution prevention guidelines, and formal consent is required from the EA for works within 16 m of a tidal watercourse, from the LLFAs for works within 8 m of an ordinary watercourse and from the Marine Management Organisation.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 9A - FRA	During the construction phase, topsoil and other construction materials will be stored outside of the 1 in 200-year floodplain extent and only moved to the temporary works area immediately prior to use and connectivity will be maintained between the floodplain, the River Tees and Greatham Creek, with no changes in ground levels within the floodplain	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9A - FRA	Any proposed works to the watercourses may require Land Drainage Consent and may also require a Water Framework Directive (WFD) Assessment.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendices 9A - FRA, 5A - Framework CEMP	The Appointed Contractors will be required to produce a Flood Risk Management Action Plan/ Method Statement which will provide details of the response to an impending flood and include: • a 24-hour availability and ability to mobilise staff in the event of a flood warning; • the removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period; • details of the evacuation and site closedown procedures; and • arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works area.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9A - FRA	For any proposed commercial or industrial developments within a designated floodplain (as in the case of some areas of the Site), a system for monitoring flood warnings should be developed with designated responsible persons (site managers) able to monitor and disseminate the warnings. They should also enable sufficient time to implement protection	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
	measures for any equipment on site. This is particularly relevant to the construction phase.	
ES Appendix 9A - FRA	Surface water flood maps indicate the access road to and from the PCC Site is affected by surface water flooding during higher return period events. Should flooding occur in this location members of staff will leave the PCC Site via the gate onto South Gare Road and then leave via Warrenby.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9A - FRA	In order to reduce the risks of drainage failure, maintenance of the drainage system will be incorporated in general site management and remains the responsibility of the operator. A manual will be prepared detailing each drainage feature on site, the maintenance required, timescales for maintenance and who is responsible for undertaking the maintenance.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9A - FRA	Prevention of contamination is a specific requirement of the Environmental Permit for the operation of the Proposed Development and therefore it is being designed such that it will not create any new areas of ground contamination or pathways to receptors as a result of construction or operation. Once the plant and equipment have been removed to ground level, it is expected that the hardstanding and sealed concrete areas will be left in place. Any areas of the Proposed Development that are below ground level will be backfilled to ground level to leave a levelled area.	DCO Schedule 2 (Document Ref. 2.1): Requirement 32: Decommissioning
ES Appendix 9A - FRA	Should the Proposed Development comprise below ground development within strata where groundwater is recorded as present, mitigation measures, including those outlined in British Standard 8102 (BS8102) will be required to reduce the risk of groundwater flooding to underground structures.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan

Reference / Chapter	Commitment	Secured by
ES Appendix 9A - FRA	A number of additional mitigation strategies will be considered during the design process for the Proposed Development to help maintain operations at the Site in the event of an extreme flood. These strategies include, providing flood resistance and resilience measures into the design of the buildings (i.e. minimum floor levels) and designing for failure, maintenance and capacity exceedance of the surface water drainage network.	DCO Schedule 2 (Document Ref. 2.1): Requirement 12: Flood Risk Mitigation DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9C - WFD Assessment	The replacement outfall pipeline would be connected to a new outfall head if this is necessary. Appropriate scour protection would need to be installed around the diffuser head to minimise the risk of scouring the seabed.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan
ES Appendix 9C - WFD Assessment	The Applicants will be required to obtain a number of permissions from the Environment Agency including consents related to discharges of any 'unclean' runoff during construction, for any activity within 8 m of the bank of a main river or culvert on a main river, works affecting the flow within ordinary watercourses (from the LLFA) and a marine licence for regulated activities below the Mean High Water Spring Tide level.	DCO Schedule 2 (Document Ref. 2.1): Requirement 16: Construction Environmental Management Plan The Environmental Permitting (England and Wales) Regulations 2016 (as amended)