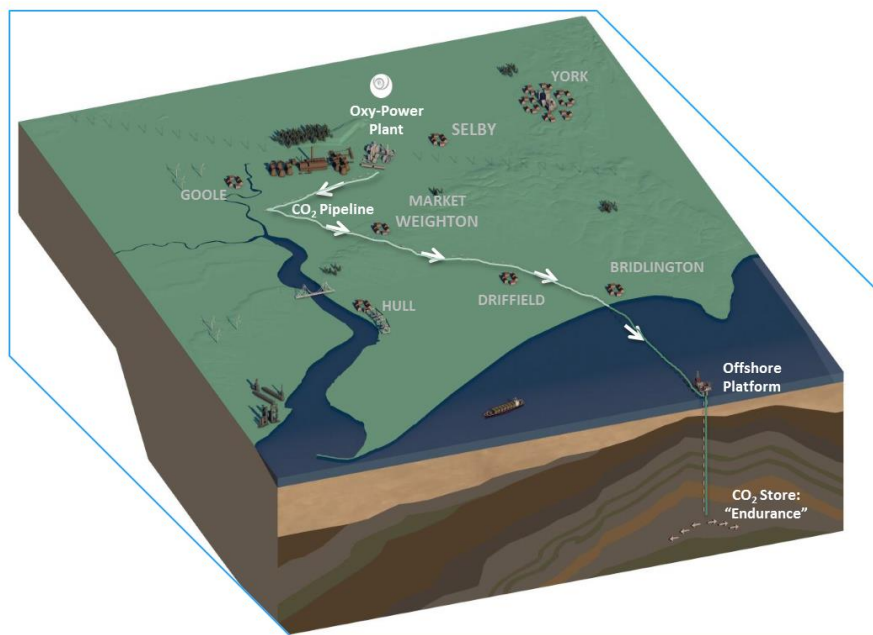




**WHITE
ROSE**

K11: Full Chain Consents Register

Technical: Full Chain



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Contents

Chapter	Title	Page
	Executive Summary	iii
1	Introduction	1
2	Consents Register	2
2.1	OPP Consents, Permits & Licences	3
2.2	Onshore Pipeline Consents, Permits & Licences	13
2.3	Offshore Consents, Permits & Licences	19
2.4	Offshore Pipeline Consents, Permits & Licences	22
2.5	CO ₂ Store Consents, Permits & Licences	25
2.6	Storage Facility Consents, Permits & Licences	29
2.7	Storage Wells Consents, Permits & Licences	35
3	Glossary	38

Table of Figures

Figure 1.1:	Full Chain Schematic Diagram	1
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Table of Tables

Table 2.1:	OPP Consents	3
Table 2.2:	Onshore Pipeline Consents	13
Table 2.3:	Offshore Consents	19
Table 2.4:	Offshore Pipeline Consents	22
Table 2.5:	CO ₂ Store Consents	26
Table 2.6:	Storage Facility Consents	29
Table 2.7:	Storage Wells Consents	35

Key Words

Key Word	Meaning or Explanation
Carbon Dioxide	A greenhouse gas produced during the combustion process
Carbon Capture and Storage	A technology which reduces carbon emissions from the combustion based power generation process and stores it in a suitable location
Coal	The fossil fuel used in the combustion process for White Rose
Consents	Permissions and approvals required for the project to proceed
Development Consent Order	A statutory instrument granted by the Secretary of State to authorise the construction and operation of a Nationally Significant Infrastructure Project. The natures of these projects are defined by sections. 14-30 of the Planning Act 2008
Environment	The natural world, as a whole or in a particular geographical area, especially as affected by human activity
Full Chain	A complete CCS system from power generation through CO ₂ capture, compression, transport to injection and permanent storage
Key Knowledge	Information that may be useful if not vital to understanding how some enterprise may be successfully undertaken
Storage	Containment in suitable pervious rock formations located under impervious rock formations usually under the sea bed
Transport	Removing processed CO ₂ by pipeline from the capture and process unit to storage
Oxy Boiler	The boiler within the OPP capable of producing full load in either the air or oxy-fired mode of operation
Oxy-firing	The use of oxygen (instead of air) in the combustion process
Oxyfuel	The technology where combustion of fuel takes place with oxygen replacing air as the oxidant for the process, with resultant flue gas being high in CO ₂
Oxy Power Plant	A power plant using oxyfuel technology
White Rose	The White Rose Carbon Capture and Storage project

Executive Summary

The Full Chain Consents Register was generated as part of the Front End Engineering Design (FEED) contract with the Department of Energy and Climate Change (DECC) for White Rose, an integrated full-chain Carbon Capture and Storage (CCS) Project. This document is one of a series of Key Knowledge Deliverables (KKD) from White Rose to be issued by DECC for public information.

White Rose comprises a new coal-fired ultra-supercritical Oxy Power Plant (OPP) of up to 448 MWe (gross) and a Transport and Storage (T&S) network that will transfer the carbon dioxide from the OPP by pipeline for permanent storage under the southern North Sea. The OPP captures around 90% of the carbon dioxide emissions and has the option to co-fire biomass.

Delivery of the project is through Capture Power Limited (CPL), an industrial consortium formed by General Electric (GE), BOC and Drax, and National Grid Carbon Limited (NGC), a wholly owned subsidiary of National Grid.

Her Majesty's Government (HMG) Autumn Statement and Statement to Markets on 25 November 2015 regarding the Carbon Capture and Storage Competition confirmed that the £1 billion ring-fenced capital budget for the Carbon Capture and Storage Competition was no longer available. This meant that the Competition could not proceed on the basis previously set out. A notice of termination of the White Rose FEED Contract was issued to CPL on 23 December 2015 and the FEED Contract was terminated on 25 January 2016; a date which was earlier than the expected completion date. The Government, CPL and National Grid are committed to sharing the knowledge from UK CCS projects, and this Key Knowledge Deliverable represents the learning achieved up to the cancellation of the CCS Competition and termination of the FEED Contract and therefore does not necessarily represent the final and completed constructible project.

This report provides a comprehensive consents register of all consents required for the delivery of the project.

This document should be read in conjunction with the following documents:

- K.02 - Full Chain Basis of Design;
- K.13 - Full Chain Environmental Reports; and
- K.45 - Full Chain Public and Stakeholder Engagement.

1 Introduction

The White Rose Carbon Capture and Storage (CCS) Project (White Rose) is an integrated full-chain CCS project comprising a new coal-fired Oxy Power Plant (OPP) and a Transport and Storage (T&S) network that will transfer the carbon dioxide from the OPP by pipeline for permanent storage under the southern North Sea.

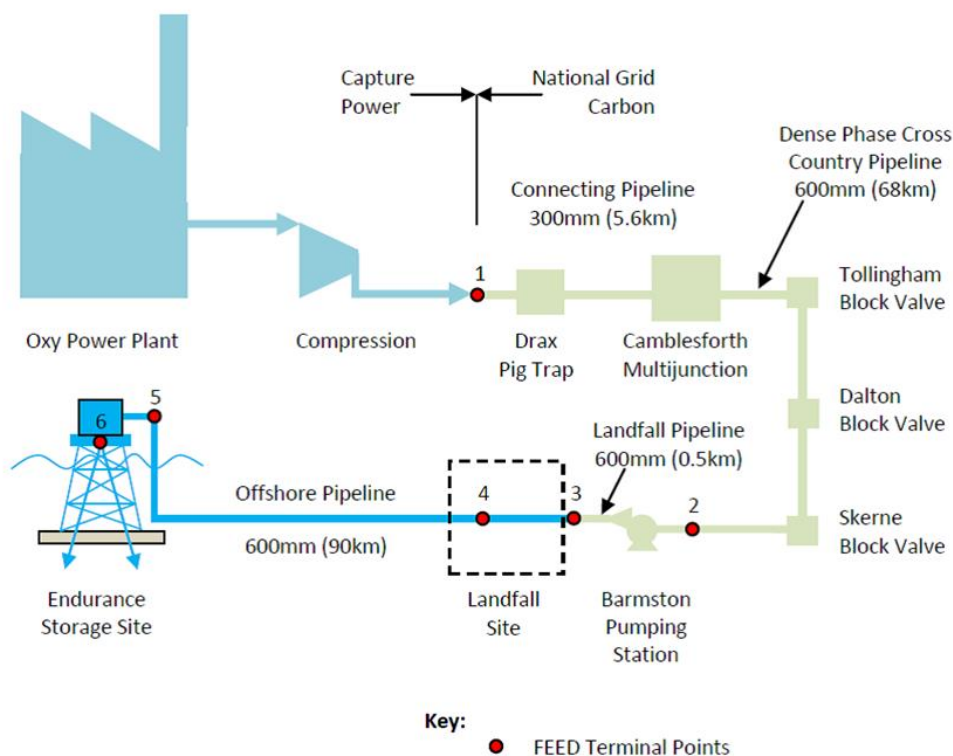
The OPP is a new ultra-supercritical power plant with oxyfuel technology of up to 448 MWe gross output that will capture around 90% of carbon dioxide emissions and also have the option to co-fire biomass.

One of the first large scale demonstration plants of its type in the world, White Rose aims to prove CCS technology at commercial scale as a competitive form of low-carbon power generation and as an important technology in tackling climate change. The OPP will generate enough low carbon electricity to supply the equivalent needs of over 630,000 homes.

White Rose is being developed by Capture Power Limited, a consortium of GE, BOC and Drax. The project will also establish a CO₂ transportation and storage network in the region through the Yorkshire and Humber CCS pipeline being developed by National Grid Carbon Ltd (NGC).

The Full Chain and its component parts (see Figure 1.1) are designed to be operated such that the target of two million tonnes of CO₂ per year can be safely stored.

Figure 1.1: Full Chain Schematic Diagram



2 Consents Register

The consents register is divided into sections for areas of the project:

- OPP
- Onshore Pipeline
- Offshore
- Offshore Pipeline
- CO₂ Store
- Storage Facility
- Storage Wells

For each area a table lists all consents required for delivery of the project, along with a brief description, the granting authority or commercial entity, a summary description of the work needed to meet the requirements for granting the consent, including, where relevant, references to published documents.

2.1 OPP Consents, Permits & Licences

Table 2.1 details the Consents, Permits & Licences required for the OPP.

Table 2.1: OPP Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Development Consent Order	<p>A Development Consent Order (DCO) is a statutory Order which provides consent for a project and means that a range of other consents, such as planning permission and listed building consent will not be required. A DCO can also include provisions authorising the compulsory acquisition of land or of interests in or rights over land which is the subject of an application.</p> <p>The White Rose OPP is a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008 and hence is subject to the grant of a DCO.</p>	<p>The Planning Act 2008, generating station of 50MW or more generating capacity.</p>	<p>Planning Inspectorate / Secretary of State for Energy and Climate Change (DECC)</p>	<p>http://infrastructure.planninginspectorate.gov.uk/application-process/the-process/</p>	<p>There is a requirement for robust public consultation and draft documents to be compiled before the DCO application will be accepted by the Planning Inspectorate (PINS), which deals with the application on behalf of the Secretary of State. The process is stringent, with milestones which must be met. There is also the need to have any requirements (conditions) of the DCO approved by the relevant authorities before works may commence on site.</p> <p>The DCO process comprises six key stages, covering pre-application, acceptance, pre-examination, examination, decision and post-decision stages.</p> <p>The work in the pre-application stage begins with a Scoping Report that identifies all the topics that will be assessed during the Environmental Impact Assessment (EIA) process.</p> <p>Consultation with key stakeholders is required pre-application and to this end a Preliminary Environmental Information Report (PEIR) is developed covering the areas identified in the Scoping Report.</p> <p>In addition public exhibitions are held to explain the project to the local community.</p> <p>Further detail of the consultation process is given in K.13 (Full Chain Environmental Report).</p> <p>Following consultation the DCO application documents are prepared, these can be found at :</p>

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Environmental Permit for the operation of the generating station	<p>A generating station requires a 'permit to operate'. In addition to setting limits for emissions to air and water, the permit has requirements for a range of environmental issues including energy efficiency, use of raw materials and waste management. It also sets out monitoring and reporting on environmental performance.</p> <p>For the White Rose project the application is for a variation to the existing Drax Power Station Environmental Permit ('EP').</p> <p>While the EP will be granted as a variation to the existing Drax Power Station Environmental Permit, it is anticipated that at the appropriate time a subsequent variation will be required to move either to a multi operator licence or to apply for a separate EP for White Rose.</p>	<p>Pollution Prevention and Control Act (1999) / Industrial Emissions Directive (IED) / The Environmental Permitting (England and Wales) Regulations 2010</p>	<p>The Environment Agency ('EA')</p>	<p>https://www.gov.uk/topic/environmental-management/environmental-permits</p> <p>https://www.gov.uk/environmental-permit-how-to-apply/overview</p> <p>http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm</p>	<p>http://infrastructure.planningportal.gov.uk/projects/yorkshire-and-the-humber/white-rose-carbon-capture-and-storage-project/</p> <p>During the examination phase the Developer must respond to written questions from the examiner and also attend hearings convened by the Examiner.</p> <p>Pre-application discussions with the EA to familiarise them with the OPP process and to determine what specific information would be required for permitting a CCS process.</p> <p>Completion of application form and provision of information to support the application including:</p> <ul style="list-style-type: none"> Layout and elevation drawings Location Plan Habitats Plan Historic Environment Plan Technical Description Operational Risk Appraisal Management & Systems description H1 Impact Assessment Point Sources Emissions to Air Point Sources Emissions to Water Noise & Vibration Raw Materials Energy Efficiency Best Available Technology (BAT) statement Combined Heat & Power (CHP) Assessment Habitats Regulations Assessment <p>Post application discussions and question responses.</p>

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Electricity Generation Licence	Licence required to export power to the grid.	Section 6 of the Electricity Act 1989 (licences authorising supply, etc.)	Gas and Electricity Markets Authority	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206871/electricity_generation_distribution_supply_options_faq.pdf	<p>The Developer must submit an application giving details of the proposed generation plant and the company itself.</p> <p>The Grid Compliance Processes ("CP") allows users connecting to the NETS to receive a 'compliance certificate' without which a User is unable to connect or use the National Electricity Transmission System (NETS). This certificate is known as an Operational Notification.</p> <p>Three stages of Operational Notifications, as defined in the Grid Code, will be required for putting White Rose into operation.</p> <ul style="list-style-type: none"> ▪ EON - Energisation Operational Notification - Required for first energisation of a new connection. ▪ ION - Interim Operational Notification - required for first export to the NETS for a new generator connection. ▪ FON - Final Operational Notification - issued when all compliance issues have been resolved <p>All involve preparation & submission of information to National Grid Electricity Transmission (NGET), followed by NGET issuing the appropriate Operational Notice for the stage reached.</p>
Bilateral Connection Agreement for entry into the National Grid/National Transmission System for the export of electricity from the site and a 'Construction Agreement'	<p>The Bilateral Connection Agreement (BCA) states how generators will be required to comply with the:</p> <ul style="list-style-type: none"> ▪ Grid Code ▪ Connection Use of System (CUSC) ▪ Balancing and Settlement Code (BSC) <p>It also defines the arrangement for connection to the NETS.</p> <p>The agreement also details the provisions for the balancing services because generators with this type of</p>		National Grid Electricity Transmission plc ('NGET')	http://www2.nationalgrid.com/UK/Services/Electricity-connections/New-connection/New-BCA-Agreement/	Requirement to complete a connection application form and provide technical data (Data Registration Code).

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Water Abstraction Licence	<p>agreement actively participate in the electricity balancing market.</p> <p>Under the Water Resources Act 1992, an Abstraction Licence is required if more than 20,000 litres of water a day from a surface or groundwater source is to be abstracted.</p> <p>For White Rose water will be provided using the existing Drax Power Station Water Abstraction Licence.</p>	<p>Section 24 of the Water Resources Act 1991 (as amended) for the abstraction of more than 20 cubic metres (4,000 gallons) of water per day from a surface or groundwater source (including rivers, streams, canals, lakes, ponds, reservoirs, boreholes and springs).</p>	EA	<p>https://www.gov.uk/topic/environmental-management/water</p>	<p>No amendment proposed at this time to the existing Drax Power Station Water Abstraction Licence as there is sufficient 'headroom' within existing licence provisions.</p> <p>May require minor administrative amendment regarding water usage (who is using the water rather than volume). Amendment (if required) likely to be made within the period prior to commencement of construction</p>
Hazardous Substances Consent (HSC)	<p>Consent to store Hazardous Substances onsite.</p> <p>Any site which needs to use or store hazardous substances, at or above certain thresholds, requires a hazardous substances consent before it can operate.</p>	<p>the Planning and Hazardous Substances regulations, 2009 (as amended)</p>	<p>Hazardous Substances Authority (HSA), which is usually the Local Planning Authority (Selby District Council ('Selby DC'))</p>	<p>http://planningguidance.communities.gov.uk/blog/guidance/hazardous-substances/</p>	<p>Completed application form including details of proposed quantities, use, storage design details and locations of all hazardous substances.</p>
Control of Major Accident Hazards (COMAH) Regulations	<p>Requirements vary depending on whether the lower tier or higher tier thresholds in the Control of Major Accident Hazards</p>	<p>The Control of Major Accident Hazards (COMAH) Regulations 2015</p>	<p>Health and Safety Executive (HSE) and EA</p>	<p>http://www.hse.gov.uk/comah/</p>	<p>For all COMAH sites the requirements on the operator are:</p> <ul style="list-style-type: none"> ■ To notify the relevant authorities (HSE and EA) ■ Be able to demonstrate that: it has taken 'all measures necessary' to prevent major accidents and limit their

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
	<p>Regulations 1999 (and later Regulations) are met.</p> <p>To be sought during project implementation.</p> <p>There is no licence it is simply the lack of a prohibition. The responsibilities lie with EPC Contractor and O&M Operator. The actual submissions will depend on tier status</p> <p>Current assessment is that the Oxy-Power Plant will be a Lower Tier site.</p>				<p>consequences to persons and the environment (this implies that the operator has identified the Major Accident Hazards)</p> <ul style="list-style-type: none"> ■ To produce and implement a Major Accident Prevention Policy (MAPP) prior to commencement of operation. The purpose of the MAPP is to provide a statement of the senior management's commitment to achieving high standards of major hazard control ■ Provide information to the public. Information must be available to anyone in an area likely to be affected by a major accident. This area is known as the Public Information Zone (PIZ). The Competent Authority (CA) is responsible for providing this information
<p>Local Planning Application</p>	<p>Preliminary works (in case it is decided to undertake some works prior to award of DCO) including site raising, earthworks, road infrastructure, fencing, extension of utilities and services.</p> <p><i>Note this consent is specific to the White Ross project and site. Details available at:</i></p> <p>http://publicaccess.selby.gov.uk/AnitePublicDocs/00395818.pdf</p>	<p>Town and Country Planning Act 1990 for development.</p>	<p>Selby DC</p>	<p>http://www.planningportal.gov.uk/wps/portal/genpub_LocalInformation</p>	<p>Planning Application including:</p> <ul style="list-style-type: none"> Planning statement Environmental Statement Environmental Impact Assessment Location plan Layout plan Drawings
<p>Local Planning Application</p>	<p>Proposed works in connection with the use of</p>	<p>Town and Country Planning</p>	<p>Selby DC</p>	<p>http://www.planningportal.gov.uk/wps/portal/genpub_LocalInformation</p>	<p>Planning Application including:</p> <ul style="list-style-type: none"> Location plan Layout plan

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
	<p>the existing Drax Power Station jetty.</p> <p><i>Note this consent is specific to the White Ross project and site. Details available at:</i></p> <p>http://public.selby.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=NTDT4YNXJIB00</p>	Act 1990 for development.			<p>Drawings Flood Risk Assessment Noise Assessment Transport Statement Planning Statement</p>
Flood Defence consent for Jetty works	Consent to work adjacent or on an existing flood defence system i.e. the River Ouse embankment	Water Resource Act 1991	EA	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289107/LIT_6860_a38fb_2_Guidance_Flood_Defence_Consent_England_Wales.pdf	Completed application form including details of land ownership, proposed works and construction details including plans and sections, and effect on the environment.
Permanent Works Consent, 7 metre access strip along Carr Dyke at Drax Power Station	<p>Consent to construct a 7 metre access strip along Carr Dyke to the north of Drax Power Station, between the north cooling towers and Drax Abbey Farm</p> <p><i>Note this consent is specific to the White Ross project and site.</i></p>	Section 23 of the Land Drainage Act 1991 (prohibition on obstructions etc. in watercourses, known as land drainage consent)	Local lead drainage authority : Selby Area Internal Drainage Board (a member of the Shire Group of Internal Drainage Boards)	https://www.gov.uk/flood-defence-consent-england-wales	<p>Meetings held with Internal Drainage Board (IDB) regarding works.</p> <p>Application containing details of the works.</p> <p>Provision of additional information as required.</p> <p>Note: the consent is for a period of 12 months if works not undertaken in that period would require application for an extension and verification that details are still as originally agreed.</p>
Permanent Works Consent, surface water discharge to Carr Dyke at Drax Power Station	<p>Consent to discharge surface water, from the OPP site area to the south of Carr Dyke, to Carr Dyke at a maximum rate of 21 l/s.</p> <p><i>Note this consent is specific to the White Ross project and site.</i></p>	Section 23 of the Land Drainage Act 1991 (prohibition on obstructions etc. in watercourses, known as land	Local lead drainage authority : Selby Area Internal Drainage Board (a member of the Shire Group of Internal Drainage Boards)	https://www.gov.uk/flood-defence-consent-england-wales	<p>Meetings held with Internal Drainage Board (IDB) regarding works.</p> <p>Application containing details of the works.</p> <p>Provision of additional information as required.</p> <p>Note: the consent is for a period of 12 months if works not undertaken in that period would require application for an extension and verification that details are still as originally agreed.</p>

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		drainage consent)			
Permanent Works Consent, pedestrian footbridge at Drax Power Station	Consent to construct a pedestrian footbridge. <i>Note this consent is specific to the White Ross project and site.</i>	Section 23 of the Land Drainage Act 1991 (prohibition on obstructions etc. in watercourses, known as land drainage consent)	Selby Area Internal Drainage Board (a member of the Shire Group of Internal Drainage Boards)	https://www.gov.uk/flood-defence-consent-england-wales	Meetings held with Internal Drainage Board (IDB) regarding works. Application containing details of the works. Provision of additional information as required. Note: the consent is for a period of 12 months if works not undertaken in that period would require application for an extension and verification that details are still as originally agreed.
Permanent Works Consent, Infrastructure Bridge at Drax Power Station	Consent to construct an Infrastructure Bridge <i>Note this consent is specific to the White Ross project and site.</i>	Section 23 of the Land Drainage Act 1991 (prohibition on obstructions etc. in watercourses, known as land drainage consent)	Selby Area Internal Drainage Board (a member of the Shire Group of Internal Drainage Boards)	https://www.gov.uk/flood-defence-consent-england-wales	Meetings held with Internal Drainage Board (IDB) regarding works. Application containing details of the works. Provision of additional information as required. Note: the consent is for a period of 12 months if works not undertaken in that period would require application for an extension and verification that details are still as originally agreed.
Temporary Works Consent, Vehicular Access Bridge / culverting of Carr Dyke at Drax Power Station.	Consent to construct a Vehicular Access Bridge / consent to culvert Carr Dyke for temporary access across Carr Dyke during OPP construction. <i>Note this consent is specific to the White Ross project and site.</i>	Section 23 of the Land Drainage Act 1991 (prohibition on obstructions etc. in watercourses, known as land drainage consent)	Selby Area Internal Drainage Board (a member of the Shire Group of Internal Drainage Boards)	https://www.gov.uk/flood-defence-consent-england-wales	Meetings held with Internal Drainage Board (IDB) regarding works. Application containing details of the works. Provision of additional information as required. Note: the consent is for a period of 12 months if works not undertaken in that period would require application for an extension and verification that details are still as originally agreed.
Public Path Diversion and Definitive Map and Statement	Permission to move a public footpath around the boundary of the OPP.	Under Section 119 of the Highways Act 1980, and	North Yorkshire County Council	http://www.planningportal.gov.uk/permission/responsi	Discussions with NYCC.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Modification Order	<p><i>Note this consent is specific to the White Ross project and site. Details available at:</i></p> <p>http://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010048/2.%20Post-Submission/Application%20Documents/Plans/4.4%20Access%20and%20Rights%20of%20Way%20Plans%20(Key%20Plan%20and%20Sheets%201%20-%20204).pdf</p>	Section 53A(2) of the Wildlife and Countryside Act 1981		ilities/beforeyoustart/otherpermissions/footpaths	Application for footpath diversion including detailed drawings of existing route and proposed alteration
European protected species licence (for badgers)	Consent to close badger setts if a buffer zone around the sett cannot be established.	The Conservation of Habitats and Species Regulations 2010	Natural England ('NE')	https://www.gov.uk/guidance/badgers-protection-surveys-and-licences	<p>Survey of existing badger setts and report highlighting mitigation plans.</p> <p>Formal submission of Badger Licence application detailing setts effected, location, licensable actions to be taken, method, timing and authorized individuals undertaking the work.</p>
Building Regulations Approval	Building regulations are statutory instruments that seek to ensure that the policies set out in the relevant legislation are carried out. Building regulations approval is required for most building work in the UK.	The Building Regulations are made under powers provided in the Building Act 1984 (as amended), and apply in England and Wales. The current regulations are 'The Building Regulations 2010' and the Building (Approved Inspectors etc.)	The Local Planning Authority (Selby DC)	http://www.planningportal.gov.uk/buildingregulations/approveddocuments/	<p>Detailed design to be completed before Building Regulations application(s) can be made. This will follow the DCO award.</p> <p>The appointed contractor will submit applications during project execution.</p> <p>Full plans shall be submitted to the Local Authority, accompanied by a statement as to whether the Regulatory Reform (Fire Safety) Order 2005 applies, or will apply after the completion of the building work.</p> <p>On completion of the work the local authority should be informed within 5 days and shall issue a completion certificate in accordance with regulation 17.</p>

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Permit for Transport of Abnormal Loads	Before a haulier can move an abnormal load he must notify and gain consent from the Police. In addition, if the gross weight or axle weights exceed those specified on the Construction and Use regulations he must indemnify the Highway Authority and all bridge owners along the proposed route (e.g. Network Rail).	Regulations 2010. Road Vehicles (Authorisation of Special Types) (General) Order 2003 or from the Secretary of State (SoS) under the Road Traffic Act 1988	Local Police Authority / Highways Agency / Local Highways Authority / Third Party / Department for Transport	https://www.gov.uk/esdal-and-abnormal-loads/abnormal-loads	The appointed contractor will apply during construction in advance of any loads and when there is required information available as to the number and scheduling of loads. The law requires the haulier to give a minimum of two clear days' notice to the Police, Highway Authority and Bridge owners before moving the load. A Special Order application must be completed 10 weeks before the scheduled date of the move. The notice period for loads over 150 tonnes, 6.1 metres wide or 27.4 metres long is different and hauliers moving such loads need special orders from the Department of Transport.
Regulatory Reform (Fire Safety) Order 2005.	The Order places the responsibility on individuals within an organisation to carry out risk assessments to identify, manage and reduce the risk of fire. Owner to complete fire risk assessment and then the premises will continue to be inspected against compliance.	Regulatory Reform (Fire Safety) Order 2005.	Local fire and rescue authority (HSE has enforcement responsibility on construction sites).	http://www.hse.gov.uk/toolbox/fire.htm https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/14879/making-your-premises-safe-short-guide.pdf	Will be sought, after the DCO has been made by the SoS in advance of construction activities in consultation with local fire and rescues authority and HSE. Requires a 'Fire Safety Risk Assessment' for construction and operation, with an 'Action Plan' from this.
Hazardous Waste Producer Registration	Requirement to register with the EA if produce > 500 kg of hazardous waste is produced, held or removed in any 12-month period Hazardous waste is waste that can be harmful to human health or the environment.	The Hazardous Waste (England and Wales) Regulations 2005	EA	https://www.gov.uk/hazardous-waste-producer-registration	Principal Contractor required to register for waste created through construction works CPL required to register for permanent site notification for waste produced during operations. Able to be applied for via the EA section on the www.gov.uk website. Required to be annually renewed.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Radioactive substances Permit	Regulates the keeping and use of radioactive material and makes provision for the disposal and accumulation of radioactive waste.	Radioactive Substances Act 1993 as incorporated into Environmental Permitting Regulations 2010 (as amended).	EA	https://www.gov.uk/government/collections/radioactive-substances-regulation-for-non-nuclear-sites	To be submitted during project implementation, before radioactive substances are to be used in construction (e.g. radiography) Any requirements during operation would be included in EP application.
Registration, Evaluation, Authorisation & Restriction of Chemicals (REACH) – Ashes from Coal	Requirement for manufacturers or importers of substances to register with a central European Chemicals Agency (ECHA) and REACH regulations.	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing an ECHA	HSE / ECHA	http://www.hse.gov.uk/reach/	Registration involves a number of steps: looking for existing data, sharing data where it exists, creation of the electronic registration dossier and sending that dossier to ECHA.
Registration, Evaluation, Authorisation & Restriction of Chemicals (REACH) - Gypsum	Requirement for manufacturers or importers of substances to register with a central ECHA.	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing an ECHA	HSE / ECHA	http://www.hse.gov.uk/reach/	Registration involves a number of steps: looking for existing data, sharing data where it exists, creation of the electronic registration dossier and sending that dossier to ECHA.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
EU Emissions Trading Scheme (EUETS) Permit for Generation	Greenhouse Gas Emissions Permit and Carbon Dioxide Allowances.	The Greenhouse Gas Emissions Trading Scheme Regulations 2005 (as amended)	EA	https://www.gov.uk/guidance/participating-in-the-eu-ets	<p>The 'operator' of an installation carrying out a regulated activity must apply for a permit and the application must be made before the regulated activities commence.</p> <p>For a greenhouse gas emissions permit, there are four steps:</p> <ol style="list-style-type: none"> 1. Register the new installation at the Emissions Trading System Workflow Automation Program (ETSWAP) 2. Submit an application for a permit and a monitoring plan via ETSWAP 3. Open a Union Registry Account 4. Buy allowances or apply to the New Entrants Reserve (if eligible) <p>Only CO₂ emitted to atmosphere is reported – captured CO₂ is not reportable.</p> <p>Businesses must monitor and report their EU ETS emissions for each calendar year and have their emission reports checked by an accredited verifier.</p>

2.2 Onshore Pipeline Consents, Permits & Licences

Table 2.2 details the Consents, Permits & Licences required for the Onshore Pipeline.

Table 2.2: Onshore Pipeline Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Development Consent Order	A Development Consent Order (DCO) is a statutory Order which provides consent for a project and means that a range of other consents, such as planning permission and listed	Planning Act 2008	PINS / Secretary of State for Energy & Climate Change (DECC)	http://infrastructure.planninginspectorate.gov.uk/application-process/the-process/	There is a requirement for robust public consultation and draft documents to be compiled before the DCO application will be accepted by the Planning Inspectorate (PINS), which deals with the application on behalf of the Secretary of State. The process is stringent, with milestones which must be met. There is also the need to have any requirements (conditions) of the DCO approved by the relevant authorities before works may commence on site.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
	<p>building consent will not be required. A DCO can also include provisions authorising the compulsory acquisition of land or of interests in or rights over land which is the subject of an application.</p> <p>The Yorkshire and Humber CCS Cross Country Pipeline is a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008 and hence is subject to the grant of a DCO.</p>				<p>The DCO process comprises six key stages, covering pre-application, acceptance, pre-examination, examination, decision and post-decision stages.</p> <p>The work in the pre-application stage begins with a Scoping Report that identifies all the topics that will be assessed during the Environmental Impact Assessment (EIA) process.</p> <p>Consultation with key stake holders is required pre-application and to this end a Preliminary Environmental Information Report (PEIR) is developed covering the areas identified in the Scoping Report.</p> <p>In addition public exhibitions are held to explain the project to the local community.</p> <p>Further detail of the consultation process is given in K.13 (Full Chain Environmental Report).</p> <p>Following consultation the DCO application documents are prepared, these can be found at : http://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/yorkshire-and-humber-ccs-cross-country-pipeline/</p>
Flood Defence Consent	Consent required for the pipeline crossing the main river. The approval of this consent will allow for pipe installation and construction access.	Water Resources Act 1991 s 109 Regional Land Drainage and Sea Defence Byelaws	EA		<p>Consultation with EA. Preparation of watercourse crossing schedule with relevant authority / crossing method/ access requirements / consent requirements. Typical crossing profile. Obtain written agreement of consenting authority prior to DCO application if consent to be included in a draft DCO.</p>
Flood Defence Consent / Byelaw Consent	Consent required for the temporary works needed to install the pipeline under/over a main river.	Water Resources Act 1991 s 109/ Yorkshire Land Drainage Byelaws 1980 Regional Land Drainage and	EA		<p>Consultation with EA. Need to confirm which byelaws apply. Preparation of watercourse crossing schedule with relevant authority / crossing method/ access requirements / consent requirements</p>

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		Sea Defence Byelaws			
Flood Defence Consent/ Byelaw Consent	Consent required for the temporary construction access required to cross the main river.	Water Resources Act 1991 s 109 / Yorkshire Land Drainage Byelaws 1980 Regional Land Drainage and Sea Defence Byelaws	EA		Consultation with EA. Need to confirm which byelaws apply. Preparation of watercourse crossing schedule with relevant authority / crossing method/ access requirements / consent requirements
Byelaw Consent	Byelaw consent to have a temporary construction works within an 8m perimeter of the main river.	Yorkshire Land Drainage Byelaws 1980 Regional Land Drainage and Sea Defence Byelaws	EA		Consultation with EA. Need to confirm which byelaws apply. Preparation of watercourse crossing schedule with relevant authority / crossing method/ access requirements / consent requirements. Preparation of consent requirements. Obtain written agreement of consenting authority prior to DCO application if consent to be included in a draft DCO.
Flood Defence Consent/ Byelaw Consent	Consent required for land drainage to run-off into main river.	Water Resources Act 1991 s 109 / Yorkshire Land Drainage Byelaws 1980 Regional Land Drainage and Sea Defence Byelaws	EA		Consultation with EA. Need to confirm which byelaws apply. Preparation of watercourse crossing schedule with relevant authority / crossing method/ access requirements / consent requirements.
Abstraction Licence	Consent to take water from a surface source (such as river, stream or canal) or from an underground source (in this instance to allow excavation for pipeline construction).	Water Act 2003 Water Resources Act 1991 (as amended) Section 24) Environmental Permitting (England and Wales) Regulations	EA		Refer to Catchment Abstraction Management Strategy for the area to check the availability of water. Consult Environment Agency. Given that water abstraction licences relate to a specific source of supply, it is likely that several water abstraction licences will be required for the dewatering operation to allow excavation for the construction of the full length of the pipeline. Groundwater abstraction may require testing the source License application

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		2010 (as amended)			
Environmental Permit	Environmental permit to allow for well point dewatering.	Environmental Permitting Regulations 2010	EA		N/A
Abstraction License	Consent to take water from a surface source (such as river, stream or canal) or from an underground source (in this instance for dewatering excavations).	Water Act 2003 Water Resources Act 1991 (as amended) Section 24 Environmental Permitting (England and Wales) Regulations 2010 (as amended)	EA		Refer to Catchment Abstraction Management Strategy for the area to check the availability of water. Consult Environment Agency. Given that water abstraction licences relate to a specific source of supply, it is likely that several water abstraction licences will be required for the dewatering operation to allow excavation for the construction of the full length of the pipeline. Groundwater abstraction may require testing the source License application
Environmental Permit	Environmental permit to allow for well point dewatering excavations.	Environmental Permitting Regulations 2010	EA		N/A
Abstraction License	Consent to take water from a surface source (such as river, stream or canal) or from an underground source (in this instance for hydrostatic test water).	Water Act 2003 Water Resources Act 1991 (as amended) Section 24 Environmental Permitting (England and Wales) Regulations 2010 (as amended)	EA		Refer to Catchment Abstraction Management Strategy for the area to check the availability of water. Consult Environment Agency. License application
Environmental Permit	Environmental permit to discharge hydrostatic test water.	Environmental Permitting Regulations 2010	EA		Consult EA on Environmental Permit requirements

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Environmental Permit	Permit required before discharging surface water run-off to any watercourse.	Environmental Permitting Regulations 2010	EA		Consult EA on Environmental Permit requirements. See also DCO Model Provisions (Article 14 of Schedule 1) Note that the DCO model provision (Article 14 of Schedule 1) allows the connection and use of a watercourse or public sewer. However, Article 14(3) confirms that the “undertaker” is still required to obtain the consent “of the person to whom it belongs” before discharging any water to any watercourse, public sewer or drain. Therefore, an environmental permit from the EA is separately required if a water discharge activity (i.e. the discharge or entry to inland freshwaters, coastal waters or relevant territorial waters of any poisonous, noxious or polluting matter, waste matter).
Flood defence consent	Consent required for temporary works to install pipeline on or over an ordinary watercourse.	Land Drainage Act 1991 s 23	IDB (Internal Drainage Board) / Lead Local Flood Authority (ERYC - East Riding of Yorkshire Council)		N/A
Flood defence consent	Consent required for temporary works to install pipeline on or over an ordinary watercourse.	Land Drainage Act s 23 / s 66	IDB / Lead Local Flood		N/A
Land Drainage consent	Consent for temporary construction works within 9m of a main watercourse.	Land Drainage Byelaws	IDB		N/A
Land Drainage consent	Consent for land drainage into an ordinary watercourse.	Land Drainage Byelaws	IDB		N/A
Environmental Permit	Environmental permit required before discharging any water to any watercourse, public sewer or drain (in this instance for sewage discharge to septic tank/cesspit – groundwater soak away).	Land Drainage Byelaws	EA		Apply Best Available Technique (BAT) Consult EA on Environmental Permit requirements. See also DCO Model Provisions (Article 14 of Schedule 1) Note that the DCO model provision (Article 14 of Schedule 1) allows the connection and use of a watercourse or public sewer. However, Article 14(3) confirms that the “undertaker” is still required to obtain the consent “of the person to whom it belongs” before discharging any water to any watercourse, public sewer or drain. Therefore, an environmental permit from the EA is separately required if a water discharge activity (i.e. the discharge or entry to inland freshwaters, coastal waters or relevant territorial waters of any poisonous, noxious or polluting matter, waste matter).

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Environmental Permit/ Exemption	Environmental permit required for the storage of reusable materials (in this instance storage of spoil on site – awaiting reuse).	Environmental Permitting Regulations 2010	EA		N/A
Environmental Permit /Exemption	Environmental permit required for a waste operation – a site where waste is recycled, stored, treated or disposed of.	Environmental Permitting Regulations 2010	EA	https://www.gov.uk/topic/environmental-management/environmental-permits	N/A
Hazardous Waste Producer Registration	Requirement to register with the EA if produce > 500 kg of hazardous waste is produced, held or removed in any 12-month period. Hazardous waste is waste that can be harmful to human health or the environment.	The Hazardous Waste (England and Wales) Regulations 2005	EA	https://www.gov.uk/hazardous-waste-producer-registration	Contractor required to register for waste created through construction works NGC required to register for permanent site notification for waste produced during operations. Able to be applied for via the EA section on the www.gov.uk website. Required to be annually renewed.
Greenhouse Gas Emissions Permit / Exclusion	Permit to carry out activities under the European Union Emissions Trading System (in this instance transport of CO ₂ in pipeline and venting of CO ₂).	Greenhouse Gas Emissions Trading Scheme Regulations 2012	EA		If CO ₂ is to be vented and the conditions for an excluded activity are not met, an application for a greenhouse gas emissions permit will be submitted the required period in advance of operations.
European Protected Species Mitigation Licence	A licence to carry out work that may affect European protected species.	Conservation of habitats and Species Regulations 2010	Natural England DECC Part of: Freshwater and migratory fish licences Plant licences Invertebrate licences European protected species	https://www.gov.uk/government/publications/european-protected-species-apply-for-a-mitigation-licence	Ecological survey as part of EIA. Identify where protected species are in proximity to pipeline works/ AGIs – avoid where possible, if not: Consultation with Natural England, pre, during and post DCO application. Full draft mitigation licence application required for Natural England to conduct an assessment in advance of the formal submission to PINS. Letters of Comfort provided by Natural England that applications for licences would comply with regulations / licensing requirements for submission with DCO application (copied to PINS). Update survey information and draft license application during

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
					DCO determination period. Formally submit mitigation license application to Natural England once DCO consent obtained
Traffic Regulation Order	Order for temporary street signage, traffic lights or speed reduction measures at pipeline road crossing during construction.	Road Traffic Regulations Act 1984	NYCC Highways ERYC Highways	http://researchbriefings.files.parliament.uk/documents/SN06013/SN06013.pdf	Preliminary requirements need to be decided. Making an order: Orders cannot be made before the statutory period for objections has ended or after a period of two years from the making of the initial notice. Within 14 days of making the order the authority must place a notice in the local press announcing their decision, ensure again that adequate publicity is given to the making of the order and write to those who objected to the proposal outlining the reasons for their decision to proceed. Any traffic signs required as a consequence of the order must be in place before it comes into force

2.3 Offshore Consents, Permits & Licences

Table 2.3 details the required Offshore Consents, Permits & Licences.

Table 2.3: Offshore Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Seaward Exploration Licence (Extension to existing licence for further 3 years from 8	Non-intrusive survey	The Petroleum Act 1998	DECC		Submission to DECC for a non-exclusive exploration licence.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
September 2014)					
Requirement for Environmental Impact Assessment (Environmental Statement (ES), PON 16)	Development (including development drilling, offshore pipeline and storage facilities).	Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended) Directive 85/337/EEC on The Assessment of the Effects of Certain Public and Private Projects on the Environment as amended by Council Directive 97/11/EC. The Energy Act (Consequential Modifications) (Offshore Environmental Protection) Order 2010 Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes	DECC	Guidance Notes on The Offshore Petroleum Production and Pipelines (Assessment Of Environmental Effects) Regulations 1999 (as amended): October 2011	National Grid will undertake consultation and desk based studies to synthesise current understanding of the environment at the storage location and along a number of indicative pipeline routes and landfall locations. Site appraisal will inform final well and infrastructure locations. An offshore ES scoping report has been prepared which has been circulated to DECC, the statutory nature conservation bodies and other relevant statutory and non-statutory stakeholders

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		relating to the environment			
Information in Relation to Requirement for Habitats Regulations Assessment (HRA)	Activities relating to carbon dioxide storage which have the potential to have a significant effect on a Special Area of Conservation (SAC) or Special Protection Area (SPA)	<p>The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (as amended 2007).</p> <p>The Energy Act (Consequential Modifications) (Offshore Environmental Protection) Order 2010.</p> <p>Council Directive 92/43 on the conservation of natural habitats and of wild fauna and flora.</p> <p>Council Directive 2009/147/EC on the conservation of wild birds</p>	DECC		The Offshore ES will include sufficient detail for the competent authority (DECC) to undertake a Habitats Regulation Assessment to inform consent decisions.
Decommissioning Programme	Storage site and pipeline decommissioning Decommissioning of offshore installations and pipelines	<p>Petroleum Act 1998</p> <p>Energy Act 2008</p> <p>Marine and Coastal Access Act 2009</p> <p>OSPAR Decision 98/3 on the disposal of</p>	DECC	<p>Guidance Notes: Decommissioning of Offshore Oil and Gas Installations and Pipelines under the Petroleum Act 1998: March 2011.</p> <p>The decommissioning programme will be in accordance with the latest guidance and requirements at the time.</p>	Decommissioning will be a key design consideration for offshore installations (e.g. manner/ease of removal etc.). National Grid will initiate dialogue with DECC on decommissioning at an appropriate stage in the life of the project.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		disused offshore installations			

2.4 Offshore Pipeline Consents, Permits & Licences

Table 2.4 details the Consents, Permits & Licences required for the Offshore Pipeline.

Table 2.4: Offshore Pipeline Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Pipeline Agreement for Lease	A lease is required to lay, maintain and operate a pipeline within territorial waters. Agreement for Lease provides option for a Lease.	Crown Estate Act 1961	The Crown Estate (TCE)		Application to and negotiation with TCE
Pipeline Works Authorisation (PWA).	Authorisation to undertake construction/modification works for an offshore pipeline or pipeline system (the offshore pipeline from low water to storage location).	The Petroleum Act 1998 (as amended) The Energy Act 2008 (as amended) The Marine & Coastal Access Act 2009	DECC	Guidance on Regulations and compilation of PWA available from DECC: https://www.gov.uk/guidance/oil-and-gas-infrastructure#guidelines-for-the-completion-of-pipeline-works-authorisations	Draft application to include project details including proposed dates, location, HSE considerations, crossing arrangements, design and operating details. Final application will require consideration of DECC review comments and completion of stakeholder (block crossing & pipeline crossing) letters of support
Lease for pipeline corridor	A lease is required to lay, maintain and operate a pipeline within the 12nm territorial limit of the UK. The lease is only entered into once all other relevant	Crown Estates Act 1961	TCE		Application to and negotiation with TCE. Draft Lease to be appended to AfL.

K11: Full Chain Consents Register



Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
	consents relating to the works are granted.				
Consent to locate pipeline (PETS)	Consent required to locate a pipeline.	The Energy Act 2008 (as amended)	DECC	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248588/PETS_-_Industry_User_Guidance_v1_0.pdf	Award of PWA Approval of offshore ES Vessel traffic survey and a collision risk assessment
Pipeline Operation (PETS)	Permit for the use and/or discharge of chemicals during the operation of a pipeline.	Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended); The Energy Act 2008 (as amended) Offshore Chemical Regulations 2002 (as amended)	DECC		Award of PWA Approval of offshore ES Approval of Consent to Locate pipeline
Notification of intention to construct pipeline (HSE)	Notification to HSE of the intention to construct an offshore pipeline (at least 3 months before construction commences).	Pipeline Safety Regulations 1996 (Reg 20)	HSE		Award of PWA Approval of offshore ES
Notification of intention to construct pipeline (DECC)	Notification to DECC of the intention to construct an offshore pipeline (at least 3 months before construction commences).	The Energy Act 2008 (as amended)	DECC		Award of PWA Approval of offshore ES
EU Emission Trading Scheme (EU)	Registration of the CO ₂ pipeline installation for EU ETS scheme.	The Greenhouse Gas Emissions Trading Scheme	DECC		Application to DECC

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
ETS) Transportation		Regulations 2005 (as amended)			
Chemical Permits (Pipeline Testing and Operation)	Consent for the use and discharge of chemicals for pipeline testing and operations.	Offshore Chemicals Regulations 2002. The Offshore Chemicals (Amendment) Regulations 2011. The Energy Act (Consequential Modifications) (Offshore Environmental Protection) Order 2010. OSPAR Decision 2000/2 and Recommendations 2000/4 and 2000/5 introducing a Harmonised Mandatory Control System for the use and reduction of the discharge of offshore chemicals. OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-	DECC	Guidance Notes on The Offshore Chemicals Regulations 2002 (As Amended 2011): March 2011	The project ES will describe the pipeline and account for potential environmental implications of pipeline installation and use. Following final chemical selection for use in the pipeline during commissioning and operation a PON15C will be submitted which will support the PWA. Chemicals for pipeline testing will be selected from the CEFAS Definitive ranked list of registered products; use and discharge for each chemical will be risk assessed as required by PON15C process.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		Contaminated Cuttings			
Marine licence (MMO)	Licence required for deposits of material in the sea if conducted prior to consents gained through Pipeline Works Authorisation and during decommissioning.	Marine and Coastal Access Act 2009 The Energy Act 2008	DECC		Permit preparation and submission to MMO (if required). Robust assessment of materials to be used and the physical nature of all crossings in relation to the interests of other users undertaken as part of the pipeline FEED process.
Notification of intention to use pipeline (HSE)	Notification to HSE of the intention to use the offshore pipeline.	The Pipeline Safety Regulations 1996 (PSR)	HSE		Notification to HSE once pipeline is installed
Safety zone	Establishment of a safety zone around operational offshore CO ₂ injection facilities.	The Petroleum Act 1987	HSE	Guidance on safety zone applications available from HSE	Safety zones are automatically generated around surface facilities when they become operational. The establishment of safety zones is contingent on the acquisition of other consents.
Abstraction License (Hydrostatic tests)	Consent to take water from a surface source (such as river, stream or canal) or from an underground source (in this instance for hydrostatic test water).	Water Act 2003 Water Resources Act 1991 (as amended) Section 24) Environmental Permitting (England and Wales) Regulations 2010 (as amended)	EA		Application to be submitted once abstraction requirements are known

2.5 CO₂ Store Consents, Permits & Licences

Table 2.5 details the Consents, Permits & Licences required for the CO₂ Store.

Table 2.5: CO₂ Store Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
EU Greenhouse Gas Emissions Permit (ETS) Store	Registration of CO ₂ storage installation for EU ETS scheme.	The Greenhouse Gas Emissions Trading Scheme Regulations 2005 (as amended)	DECC		Implications of CCS being included in the EU ETS from 2013 will be considered at the FEED stage.
Exclusivity Agreement, Agreement for Lease with The Crown Estate	An Exclusivity Agreement ensuring that The Crown Estate will not enter into an Agreement for Lease or option agreement with a third party for the sites identified in the agreement during the term of the Exclusivity Agreement. This agreement is not part of the formal permitting process.	N/A	TCE		Agreement is not part of the formal permitting process.
Carbon Storage Licence - Carbon Dioxide Storage and Appraisal licence	Consent from the Oil and Gas Authority to enable developer to undertake appraisal activities and apply for a Storage Permit.	The Energy Act 2008 (as amended). Storage of Carbon Dioxide (Licensing etc.) Regulations 2010, The Petroleum Act 1998 (as amended), Directive 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council	DECC (OGA)		Submission of draft application to the Oil & Gas Authority (OGA) including geological description of the storage site The licence application must contain a description of the project and an appraisal work programme, in addition to a description of the environment and associated environmental management considerations. Update and final submission following review of draft application by OGA. Licence awarded in November 2012

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006			
Carbon Storage Lease - Agreement for Lease	Carbon Storage Rights within lease area including entry into area, drilling and use of wells, installation maintenance and decommissioning of facilities.	The Energy Act 2008, The Carbon Dioxide (Licensing etc.) Regulations 2010, The Petroleum Act 1998. Directive 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.	TCE		Agreement for Lease awarded in February 2013. Draft Lease appended to Agreement for Lease.
Carbon Storage Permit	Permit for the storage of carbon dioxide in a geological formation.	The Energy Act 2008, The Carbon	DECC	Carbon Dioxide Storage Permit Application Guidance: DECC	The permit applications comprise a detailed desk-based geological site characterisation which evaluates primary and secondary containment options, static storage capacity estimates and seal

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		Dioxide (Licensing etc.) Regulations 2010, The Petroleum Act 1998, Directive 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.s			<p>integrity. Identification, assessment and prioritisation of key risks is undertaken early to facilitate site specific evaluation of short- and long-term storage behaviour. This includes development of a risk register and definition of Key Performance Indicators (KPIs), which enable consideration of mitigation options that can be included in the project design. Other components of the permits relate to the management of residual risks and include the storage monitoring plan, together with consideration of contingency and corrective measures and the post-closure plan.</p> <p>Following submission of the draft application, the applicant will need to ensure that the application satisfies the OGA requirements to enable the OGA to accept the application. From this point the application and associated draft permit will be reviewed by the European Commission over a four month period. The OGA must consider this opinion ahead of awarding the Permit. In addition, prior to award of the Permit, the applicant must have an Environmental Statement accepted by DECC. To obtain acceptance of the ES the applicant must address any issues or concerns raised by DECC following the completion of the statutory public consultation.</p>
Carbon Storage Lease	Lease giving rights over the 3D spatial extent matching that for which a storage permit has been granted.	The Energy Act 2008 The Carbon Dioxide (Licensing etc.) Regulations 2010 The Petroleum Act 1998 Directive 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive	TCE and DECC		Submission of option notice to The Crown Estate (post Final Investment Decision).

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006			

2.6 Storage Facility Consents, Permits & Licences

Table 2.6 details the Consents, Permits & Licences required for the Storage Facility.

Table 2.6: Storage Facility Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Notification of Well Ops (WONS)	Notification of drilling.	Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended)	DECC		Well planning
Consent for stabilisation	Consent required for deposit of materials, e.g. rock dumping or mattresses.	The Energy Act 2008 (as amended)	DECC		Well Planning Drilling Site Survey

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
material (PETS)					
"Production" Operation (PETS)	Consent required for use and discharge of chemicals during storage operations.	Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended) Offshore Chemical Regulations 2002 (as amended) The Energy Act 2008 (as amended)	DECC		Detailed design and confirmation of chemical use
Chemical Permit (Storage Operations)	Consent for the use of chemicals in connection with offshore storage activities.	Offshore Chemicals Regulations 2002 The Offshore Chemicals (Amendment) Regulations 2011 The Energy Act (Consequential Modifications) (Offshore Environmental Protection) Order 2010 OSPAR Decision 2000/2 and Recommendations 2000/4 and 2000/5 introducing a	DECC	Guidance Notes on The Offshore Chemicals Regulations 2002 (As Amended 2011): March 2012 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448262/OCR_Guidance_Notes__Revised_March_2011_.pdf	Chemicals for use in storage operations will be selected from the CEFAS Definitive ranked list of registered products; use and discharge for each chemical will be risk assessed as required by PON15D process.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		Harmonised Mandatory Control System for the use and reduction of the discharge of offshore chemicals. OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-Contaminated Cuttings			
Integrated Pollution Prevention and Control (IPPC) permit	Permit required for the operation of combustion installations (power generation, turbines, fired heaters etc.) with a combined total rated thermal input exceeding 50MW.	The Offshore Combustion Installations (Prevention and Control of Pollution) Regulations 2001 (as amended 2007) Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants Directive 2008/1/EC concerning integrated pollution prevention and	DECC		An assessment of any proposed combustion installations as Best Available Technique (BAT) will be made at the design stage and discussed with DECC in advance of a permit application (if required).

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
United Kingdom Air Pollution Prevention Certificate or International Air Pollution Prevention Certificate.	Certificate required by all Vessels or installations used during installation to demonstrate compliance with UK and/or international air pollution prevention regulations.	control (Codified version) The Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008 (as amended 2010) Environmental Protection (Controls on Ozone Depleting Substances) Regulation 2007 Protocol of 1997 for the establishment of International Regulations for the Prevention of Air Pollution from Ships MARPOL 73/78 Annex VI (with revisions adopted in October 2008)	Surveyor appointed by a certifying authority, or the Secretary of State. Maritime and Coastguard Agency		Although National Grid will not need to make a direct application for these consents, the rigs and vessels commissioned to undertake operations on its behalf will be audited to ensure compliance with the relevant legislation.
Chemical Permit (Decommissioning)	Permit for the use and discharge of chemicals during decommissioning operations.	Offshore Chemicals Regulations 2002 The Offshore Chemicals (Amendment) Regulations 2011 The Energy Act (Consequential Modifications)	DECC		The decommissioning programme will be in accordance with the latest guidance and requirements at the time.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		(Offshore Environmental Protection) Order 2010 OSPAR Decision 2000/2 and Recommendations 2000/4 and 2000/5 introducing a Harmonised Mandatory Control System for the use and reduction of the discharge of offshore chemicals. OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-Contaminated Cuttings			
Safety zone	Establishment of a safety zone around the storage site infrastructure.	The Petroleum Act 1987	DECC	Guidance on safety zone applications available from HSE	Safety zones are automatically generated around surface facilities when they become operational. The establishment of safety zones is contingent on the acquisition of other consents.
Survey and Borehole of Platform Location	Consent to undertake platform location survey and borehole	The Offshore Petroleum Activities (Conservation of Habitats) Regulations, 2001 (as amended 2007). The Energy Act	DECC		Platform design & location to be confirmed in detailed design Applications submitted to DECC

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
		(Consequential Modifications) (Offshore Environmental Protection) Order 2010. Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. Council Directive 2009/147/EC on the conservation of wild birds			
Oil Pollution Emergency Plans (OPEP)	Emergency plans required for operational phase.	The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention (OPRC)) Regulations, 1998 (as amended) Offshore Installations (Emergency Pollution Control) Regulations 2002 The International Convention on Oil Pollution Preparedness, Response and Co-operation 1990	DECC		National Grid will commence plan preparation, including the modelling of worst case diesel inventory losses following development FEED (e.g. once the installation diesel inventory has been established).

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Consent to Locate Platform	Consent to locate platform associated with the operational phase.	The Energy Act 2008	DECC		Permit award. Detailed design of platform and determination of platform location.
MoD notification of platform siting	The license shall give the MoD at least 6 months prior notice before any installation movements in the licensed area.	Condition of Licence CS001	MoD		Approval of Storage Permit. Draft letter for MoD.

2.7 Storage Wells Consents, Permits & Licences

Table 2.7 details the Consents, Permits & Licences required for the Storage Wells.

Table 2.7: Storage Wells Consents

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Drilling Operation (PETS)	Consent to drill a well offshore.	Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (as amended)	DECC		Award of Storage Permit. Drilling Programme completed. Application to DECC.
Consent to locate rig (PETS)	Consent to site drilling rig.	Offshore Chemical Regulations 2002 (as amended)	DECC		Award of Storage Permit. Drilling Programme completed. Application to DECC.

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
Oil Pollution Emergency Plans (OPEP)	Request for approval of OPEPs defining arrangements for the prevention and response to spills from installations which cause or may cause marine pollution, required for drilling operations from mobile rigs and for storage facility.	The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention (OPRC)) Regulations, 1998 (as amended) Offshore Installations (Emergency Pollution Control) Regulations 2002	DECC		National Grid will commence plan preparation, including the modelling of worst case diesel inventory losses following development FEED (e.g. once the installation diesel inventory has been established).
Safety zone	Establishment of safety zones around surface facilities.	The Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention (OPRC)) Regulations, 1998 (as amended)	DECC	Guidance on safety zone applications available from HSE	Safety zones are automatically generated around surface facilities when they become operational. The establishment of safety zones is contingent on the acquisition of other consents.
Chemical Permit (Development Wells)	Permit for the use and discharge of drilling chemicals offshore.	Offshore Installations (Emergency Pollution Control) Regulations 2002	DECC		Chemicals for each well will be selected from the CEFAS Definitive ranked list of registered products; use and discharge for each chemical will be risk assessed as required by PON15B process. (NB An application for consent to drill each appraisal and development well will also be submitted to DECC via the online Well Operations Notification System (WONS) at least 30 days in advance.)
Well Examination	Examination to confirm the safe design, construction and operation of wells.	The Petroleum Act 1987	HSE		An independent examiner will be appointed. Well notifications will be submitted at least 21 days prior to operations commencing for the appraisal wells

Title of Consent / Licence	Written description of the consent:	Legislation	Granting Authority or Entity	Guidance and Other Relevant Documents	Work Requirements for granting consent
HSE notification of rig movement	Notification to HSE of the intention of rig movement.	Offshore Chemicals Regulations 2002.	HSE		Award of Storage Permit. Drilling Programme completed. Application to DECC.
Survey and Borehole of Drilling Rig Location	Consent to carry out survey and borehole of drilling rig location.	The Offshore Chemicals (Amendment) Regulations 2011.	DECC		Drilling locations to be confirmed in detailed design. Applications submitted to DECC.
MOD notification of rig siting	The license shall give the MoD at least 6 months prior notice before any installation movements in the licensed area.	The Energy Act (Consequential Modifications) (Offshore Environmental Protection) Order 2010.	MoD		Approval of Storage Permit. Draft letter for MoD.

3 Glossary

Abbreviations	Meaning or Explanation
AGI	Above Ground Installation
ASU	Air Separation Unit
BAT	Best Available Technique
BSC	Balancing and Settlement Code
CA	Competent Authority
CCS	Carbon Capture and Storage
CEFAS	Centre for Environment Fisheries and Aquaculture Science
CHP	Combined Heat & Power
CO ₂	Carbon Dioxide
COMAH	Control of Major Accident Hazards (COMAH)
CP	Compliance Processes
CPL	Capture Power Limited
CUSC	Connection Use of System Code
DC	District Council
DCO	Development Consent Order
DECC	The UK Government's Department of Energy and Climate Change
EA	The Environment Agency
ECHA	European Chemicals Agency
EIA	Environmental Impact Assessment
EON	Energisation Operational Notification
EP	Environmental Permit
EPC	Engineering Procurement & Construction
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ETS	Emission Trading Scheme
EU	European Union
FEED	Front End Engineering Design
FON	Final Operational Notification
GE	General Electric
GPU	Gas Processing Unit – processes the flue gases to provide the dense phase carbon dioxide
HA	Highways Agency
HSA	Hazardous Substances Authority
HRA	Habitats Regulations Assessment (HRA)
HSC	Hazardous Substances Consent
HSE	Health and Safety Executive
IDB	Internal Drainage Board
ION	Interim Operational Notification
IPPC	Integrated Pollution Prevention and Control
kg	Kilogrammes
KKD	Key Knowledge Deliverable
MAPP	Major Accident Prevention Policy

Abbreviations	Meaning or Explanation
MARPOL 73/78	MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
MMO	Marine Management Organisation
MoD	Ministry of Defence
NE	Natural England
NETS	National Electricity Transmission System
NGC	National Grid Carbon Limited
NGET	National Grid Electricity Transmission
NSIP	Nationally Significant Infrastructure Project
NYCC	North Yorkshire County Council
O&M	Operations & Maintenance
OCR	Offshore Chemical Regulations
OGA	The Oil & Gas Authority is the UK's oil and gas regulator and part of DECC
OPEP	Oil Pollution Emergency Plans
OPF	Organic-Phase Drilling Fluids
OPP	Oxy Power Plant
OPRC	Oil Pollution Preparedness, Response and Co-operation Convention
OSPAR	OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic
PEIR	Preliminary Environmental Information Report
PETS	Portal Environmental Tracking System
PINS	Planning Inspectorate
PIZ	Public Information Zone
PON	Petroleum Operations Notice
PWA	Pipeline Works Authorisation
SAC	Special Area of Conservation
SoS	Secretary of State
SPA	Special Protection Area
T&S	Transportation and Storage
TCE	The Crown Estate
UKCS	United Kingdom Continental Shelf
WONS	Notification of Well Operations
WR	White Rose