

# Inch Cape Offshore Wind Farm

# Construction Environmental Management Plan (CEMP)

September 2024



### **Inch Cape Acceptance**

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#### **Consent Plan Overview**

#### **Purpose and Objectives of the Plan**

This Construction Environmental Management Plan (CEMP) has been prepared to address the specific requirements of the relevant conditions attached to the following consent documents (collectively referred to as 'the consents'):

- Section 36 Consent (dated 14<sup>th</sup> June 2023), Generating Station Marine Licence (MS-00010140 dated 15<sup>th</sup> June 2023).
- Offshore Transmission Infrastructure (OfTI) Marine Licence (MS-00010593 dated 9<sup>th</sup> November 2023) and,
- Additional Works Marine Licence (MS-00010672 dated 15th January 2024).

The consents have been issued to Inch Cape Wind Offshore Limited (hereafter referred to as 'ICOL' or Inch Cape), for the construction, operation and decommissioning of the Inch Cape Offshore Wind Farm (OWF) and Offshore Transmission Infrastructure (OfTI), (hereafter referred to as 'the Development').

This Offshore CEMP has been prepared to discharge consent conditions for both the Generating Station and OfTI simultaneously.

The overall aims and objectives of this Offshore CEMP are to detail to those involved in the construction of the Inch Cape Project, the series of measures and requirements / obligations that need to be implemented to manage environmental aspects of the project, based on commitments made by Inch Cape and the requirements of the consent conditions. All Inch Cape Contractors involved in the Inch Cape Project are required to comply with this CEMP through conditions of contract.

This document is applicable to the construction phase of the project, i.e. all construction and commissioning activities to be undertaken up to the Final Commissioning of the Development.

The environmental management for the operational lifespan of the Development from the Final Commissioning of the Development until the cessation of electricity generation is not included in this document but rather as a separate Operations and Maintenance Environmental Management Plan (OEMP) (IC02-INT-EC-OFC-010-INC-PLA-001) that will be in place until the Decommissioning of the Development. The OEMP will be submitted for approval to the Scottish Ministers once Construction is well under way, no later than 3 months prior to the commissioning of the first wind turbine generator (WTG), to ensure it is fit for purpose and captures best industry practice and latest available techniques for monitoring environmental management.

Environmental management during decommissioning is addressed by the Inch Cape Decommissioning Programme (IC02-INT-EC-OFC-003-INC-PLA-001).

This CEMP is a live document that will be reviewed regularly and updated as required. Information within this



document is accurate at the time of submission but it is recognised that changes or updates may be required to reflect changes following consultation, changes in best practice, lessons learned, etc, prior to the end of the Construction phase of the Development. The process by which this CEMP will be reviewed is presented in section 1.5.

#### Scope of the Plan

This document has been produced in line with the requirements of the consent conditions, industry standards, and best practices. This CEMP conveys information on the following:

- Roles and responsibilities for key development personnel and contractors in respect of environmental management for the protection of environmental interests during the construction of the Works.
- Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring data.
- Pollution prevention and control procedures, including contingency plans.
- Management measures to prevent the introduction of non-native marine species.
- Communication mechanisms for reporting environmental issues and compliance with the CEMP to the Scottish Ministers/Licencing Authority.
- A waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment.
- Environmental incident and non-compliance reporting, including dropped objects.
- Marine archaeology, UXO (Unexploded Ordnance) and other marine users.

#### **Plan Structure**

The CEMP has been structured as follows:

- Section 1 provides an overview of the Project and the licence requirements that underpin the
  content of this CEMP. It also sets out the linkages with other Consent Plans and the process
  for making updates and amendments.
- Section 2 specifies the overarching Environmental Management Framework, including details
  on roles and responsibilities. This section also includes Inch Cape's approach to reporting,
  communications, training and awareness, and Environmental Clerk of Works compliance
  monitoring.



- Sections 3 presents a series of measures to manage environmental aspects and the
  requirements of the licence conditions. This section also sets out measures to manage
  specific issues identified within the licence conditions, including but not limited to marine
  pollution, chemical usage, marine Invasive Non-Native Species (INNS), waste, etc.
- Section 4 stipulates key mitigation and management measures for any effects on the natural environment caused by the Development, including commitments made in the Environmental Impact Assessment Report (EIAR);
- Section 5 Lists the references made within this CEMP.

The accompanying Appendices present the following: Contractor Deliverable List, Incident Reporting processes, ECoW Non-compliance Report Template, ECoW Monthly Compliance Report Template and ICOL Marine Pollution Contingency Plan (MPCP).

#### Plan Audience

The CEMP is intended to be referred to by personnel involved in the construction of the Inch Cape Project. This includes all ICOL personnel, and Contractors notwithstanding their duties under the Construction (Design and Management) Regulations (CDM Regulations). All method statements, project installation manuals and environmental management documents produced by ICOL and Contractors in relation to the Development must align, reflect and comply with this CEMP.

Compliance with the CEMP will be monitored by ICOL's Environmental Clerk of Works (ECoW), ICOL's Environment Lead, ICOL appointed Contractors and Marine Directorate Licencing Operations Team (MD-LOT).

#### **Plan Locations**

Copies of this CEMP (and the consents) will be available at the following locations:

- ICOL's Project Office, 5<sup>th</sup> Floor, 40 Princes Street, Edinburgh, EH2 2BY;
- ICOL's Marine Coordination Centre
- The premises of any Contractors undertaking work on behalf of ICOL.
- ICOL's Environmental Clerk of Works (ECoW); and
- Aboard any vessels carrying out construction activities for the Development.



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Acronym	Term
AIS	Automatic Identification System
AFS	Anti-Fouling System
ALARP	As Low As Reasonably Possible
CaP	Cable Plan
CEA	Construction Environmental Advisor
CEMP	Construction Environmental Management Plan
CERT	Contractor Emergency Response Team
CDM	Construction (Design and Management) Regulations 2015
CFWG	Commercial Fisheries Working Group
CGOC	Coastguard Operations Centre
CMS	Construction Method Statement
COLREGS	International Regulations for Preventing Collisions at Sea 1972
COSHH	Control Of Substances Hazardous to Health
CPS Branch	Counter Pollution and Salvage Branch of the MCA
DP	Decommissioning Plan
ECoW	Environmental Clerk of Works
EEZ	Exclusive Economic Zone
EIAR	Environmental Impact Assessment Report



Acronym	Term
EPS	European Protected Species
ERCoP	Emergency Response Co-operation Plan
ETA	Estimated Time of Arrival
FLO	Fisheries Liaison Officer
FMS	Fisheries Management Scotland
FMMS	Fisheries Management and Mitigation Strategy
FTRAG	Forth and Tay Regional Advisory Group
HIRA	Hazard Identification and Risk Assessment
HAZID	Hazard Identification
HSE	Health and Safety and Environment
Hz	Hertz
IALA	The International Association of Marine Aids to Navigation and Lighthouse
ICOL	Inch Cape Offshore Limited.
	ICOL and Inch Cape are interchangeable and used throughout in this document.
IFO	Intermediate Fuel Oil
IMO	International Maritime Organisation
INNS	Invasive Non-Native Species
ITOPF	International Tank Owners Pollution Federation



Acronym	Term
ISM	International Safety Management
JNCC	Joint Nature Conservation Committee
kHz	Kilohertz
km	Kilometre
kV	Kilovolts
LMP	Lighting and Marking Plan
m	Metre
MARPOL	International Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MCC	Marine Co-ordination Centre
MEHRA	Marine Environmental High-Risk Areas
MEPC Act	Marine Environmental Protection Committee Act
MGO	Marine Gas Oil
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
ML	Marine Licence
MMO	Marine Mammal Observer
MPCP	Marine Pollution Contingency Plan



Acronym	Term
MRC	Marine Response Centre
MD-LOT	Marine Directorate Licensing Operations Team
MW	Megawatt
NCP	National Contingency Plan
NLB	Northern Lighthouse Board
NtM	Notice to Mariners
OCNS	Offshore Chemical Notification Scheme
OCU	Operations Control Unit
OfTW	Offshore Transmission Works
OSC	On-Scene Commander
OSCP	Oil Spill Contingency Plan
OSP	Offshore Substation Platform
OSPAR	The Convention for the Protection of the marine environment of the North-East
PAD	Protocol for Archaeological Discoveries
PEMP	Project Environmental Monitoring Programme
POB	Personnel On Board
PS	Piling Strategy
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations



Acronym	Term
ROV	Remoted Operated Vehicle
RSPB	Royal Society for the Protection of Birds
SAR	Search and Rescue
S36	Section 36
SAC	Special Area of Conservation
SCU	Salvage Control Unit
SEG	Scottish Standing Environment Group
SEPA	Scottish Environment Protection Agency
SMWWC	Scottish Marine Wildlife Watching Code
SNH	Scottish Natural Heritage
SOPEP	Ship Oil Pollution Emergency Plan
SOSREP	Secretary of State's Representative for Maritime Salvage and Intervention
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STAC	Scientific and Technical Advisory Committee
STC	Strategic Coordinating Group
SWCN	Special Waste Consignment Note
TAR	Transportation Audit Report



Acronym	Term
TCG	Tactical Coordinating Group
UK	United Kingdom
UKHO	UK Hydrographic Office
UK PCZ	UK Pollution Control Zone
UXO	Unexploded Ordnance
VMNSP	Vessel Management and Navigation Safety Plan
WDC	Whale and Dolphin Conservation
WSI	Written Scheme of Investigation
WTN	Waste Transfer Note
WTG	Wind Turbine Generator

Defined Term		Meaning
Audit		Inspection to confirm compliance and identify and correct non-compliances
Contractor Subcontractor)	(and	As defined by the Construction (Design and Management) Regulations 2015.  Please note that in many sections of this document the word Contractor is used in a generic way to refer to all types of Contractors.



Defined Term	Meaning
Development	Refers to the wind turbine generators (WTGs), inter-array cables, Offshore Substation Platform (OSP) and the Offshore Export Cable and any other associated works.
Development Area	The area which comprises the Offshore Wind Farm, all WTGs, inter-array cables, Offshore Substation Platform (OSP) and the beginning of the Offshore Export Cables.
	Throughout this document, the OWF and the OfTI (OSP and Export Cables) are also collectively referred to as the Inch Cape Project
Final Commissioning of the Development	Commissioning is the final stage of the construction process. Construction and commissioning activities will happen simultaneously across the project until the final turbine is installed. For the context of this document, an asset is considered commissioned once it has been energised, the specific test runs have been completed and the control passes to the O&M Team.
Forth Ports	Port authority that operates the local ports in the Firth of Forth.
Landfall	Point where up to two Offshore Export Cables from Inch Cape Offshore Wind Farm will be brought ashore.
Non- Compliance	Refers to a non-compliance (non-fulfilment of a requirement) with "the consents" of the Inch Cape project and the following: An ICOL Offshore Consent Plan, the Contractor EMP, Contractor procedure and Environmental and/or Maritime Legislation.



Defined Term	Meaning
Onshore Transmission Works (OnTW)	Includes the Onshore Substation (electrical equipment only), Landfall, underground electricity transmission cables connecting to the Onshore Substation, fibre-optic and communication cables and further underground cables required to facilitate connection to the national grid. This includes all permanent and temporary works required and all landscaping and visual mitigation.
Inch Cape Offshore Transmission Works / Offshore Transmission Infrastructure (OfTW / OfTI)	A component of the Development, comprising OSP and its foundations and substructures, and Offshore Export Cables.  Also referred to as Offshore Transmission Infrastructure throughout this document.
Inch Cape Offshore Wind Farm	A component of the Development, comprising wind turbines and their foundations and substructures, and inter-array cables.
Offshore Export Cable Corridor/	The area within which the Offshore Export Cables will be laid outside the Development Area and up to Mean High Water Springs.
Offshore Substation The platform structure offshore that contain High Voltage or Extra High switching equipment, including transformers, switchgear and other e components required to control power system switching.	
Offshore Export Cable	The subsea, buried or protected electricity cables running from the OSP to the landfall and transmitting the electricity generated to the onshore cables for transmission onwards to the onshore substation and the electrical grid connection.



Defined Term	Meaning
Principal Contractor	As defined by the Construction (Design and Management) Regulations 2015.
	Please note that in many sections of this document the word Contractor is used in a generic way to refer to all types of Contractors.
The Wind Farm	The Inch Cape Offshore Wind Farm
(The) consents	Collective term used to describe the Section 36 consents and Marine Licences issued to ICOL.
2013 Environmental Statement (ES)	Refers to the document in which the Environmental Impact Assessment (EIA) was carried for the Inch Cape 2014 Consent.
2018 Environmental Impact Assessment (EIA) Report (EIAR)	Refers to the document produced in 2018 to accompany the application for Consent of the Development (granted in 2019) following a material change in design.



#### 1 Introduction

#### 1.1 Consent and Licences

The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Infrastructure (OfTI), hereafter referred to as the Development, is being developed by Inch Cape Offshore Limited (ICOL).

ICOL originally applied for consent for the Development in 2013, and this was updated, and a revised application submitted in 2018. Section 36 and Marine Licence consents for the revised design, were granted by Scottish Ministers in 2019. Since then, ICOL has successfully sought two variations to the Section 36 and Generation Station Marine Licence to optimise wind farm efficiency and both were granted consent in June 2023 (Section 36 Variation dated 14 June 2023 and Generation Marine Licence Variation MS-00010140 dated 15 June 2023).

The Section 36 Consent, Generating Station (GS) Marine Licence, and OfTI Marine Licence for the revised design were granted by Scottish Ministers on 17<sup>th</sup> June 2019. The Section 36 Consent was subsequently varied on 16<sup>th</sup> July 2020, 22<sup>nd</sup> July 2021, and 14<sup>th</sup> June 2021, the GS Marine Licence was varied on 14<sup>th</sup> June 2023 (Licence No. MS-00010140); and the OfTI Marine Licence varied on 23<sup>rd</sup> August and amended on 9<sup>th</sup> November 2023 (Licence No. MS-00010593).

Two separate Marine Licences were granted for additional works at the landfall. These licences concern the Additional Landfall Works to facilitate the construction of the export cables through the seawall (Licence No. MS-00010672 issued on 15th January 2024), and the potential installation of a temporary Cofferdam to support the works (Licence No. MS-00010690 issued on 23rd May 2024).

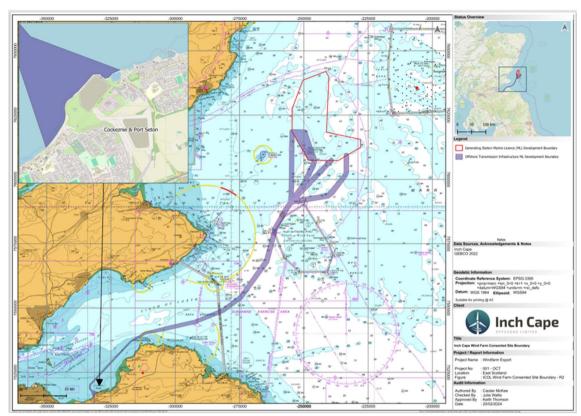
The Onshore Transmission Infrastructure was subject to a separate planning application under the Town and Country Planning (Scotland) Act. 1997. This was awarded in principle by East Lothian Councill in 2019 and extended in 2022 following reapplication by Inch Cape.

#### 1.2 Project Description

The Development will be located approximately 15 to 22 kilometres (km) (8 to 12 nautical miles (nm)) off the Angus coastline, to the east of the Firth of Tay. The site of The Development (Development Area) is approximately 150 square kilometres (km²) and will contain 72 WTGs, one OSP, 132 kilovolts (kV) interarray cabling and the initial section of the export cable between the Development Area boundary and OSP.

The Offshore Export Cable Corridor will contain the offshore export cables. The Offshore Export Cable Corridor will consist of two 220 kV export cables approximately 83 km, between the landfall point at Cockenzie in East Lothian and the boundary of the Development Area, and 1.4 km across at the widest point, reducing to approximately 250 metres (m) at the landfall.





The location and extent of the Development Area and Offshore Cable Corridor is shown in Figure 1.0.

Figure 1.0 Project Location

#### 1.2.1 Construction

Offshore construction activities will be managed from a port facility yet to be determined.

The location of marshalling ports for substructures, piles and WTG components has not yet been determined and will depend on the transport and installation concept adopted by the different Contractors. WTGs will be installed from a suitable vessel able to lift and install the components in the water depth and soil conditions of the offshore site. Other operations including piling, installation of substructures and substation topsides will be done from floating vessels which maintain position using dynamic positioning systems.

Cable burial methodologies and tools to be used for both the inter array cables within the OWF and the two export cables are still to be defined and will be selected considering the existing ground conditions. The export cables cross a sea defence wall at landfall for which the final methodology is still to be determined.



The testing and commissioning of the different assets (WTG, cables, OSP) will be completed following their respective construction installation tasks and will be followed upon completion by over to the Operations and Maintenance Team.

#### 1.2.2 Environmental Protected Areas

The windfarm and the offshore export corridor are in the vicinity of a different range of protected areas with different National and International Designations.

The following are the most representative:

- Special Protection Areas (SPAs): designated for supporting seabirds and seabirds' populations of European importance and or Annex 1 species of the Birds Directive.
- <u>Special Areas of Conservation (SACs)</u>: designated for Annex 1 habitats and Annex 2 species of the Habitats Directive.
- Ramsar Sites: Created to protect wetlands habitats and are also designated as SPAs or SACs.
- <u>Sites of Special Scientific Interest (SSSI):</u> Designated for terrestrial and intertidal wildlife amongst other features.
- Scottish Marine Protected Areas: The Firth of Forth Bank Complex MPA is north of the development. Its designation is the offshore subtidal sands and gravels, ocean quahog (*Artica islandica*), shelf banks and mounds.

Details of the different protected areas can be found in section 4.6 of Appendix E (Inch Cape Marine Pollution Contingency Plan).

#### 1.3 Consent and Licence Requirements

At the time of submission of this plan the Inch Cape project benefits from the following consents:

- The S36 Consent
- The Generation Marine Licence
- The OfTI (Offshore Transmission Infrastructure Marine Licence)
- The Additional Landfall Works Marine Licence
- Forth Ports Marine Works Licence (Landfall Works)



This Offshore Construction Environmental Management Plan (Offshore CEMP) has been prepared to satisfy the criteria of the S36 condition 14, OfTI Marine Licence condition 3.2.2.10 and Generation Marine Licence condition 3.2.2.11 as set out in Table 1.1. Table 1.2 contains additional conditions from the above list that are also intended to be discharged by this CEMP.

Additional licences may be required for specific works (e.g. Cofferdam Marine Licence, EPS Licence, etc.) however they are not included and referred to in the current version of this document.

A separate Operations and Maintenance EMP will be provided closer to Final Commissioning of the Inch Cape Project.



Table 1.1 Consent Conditions to be discharged by this Offshore CEMP.

Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
Section 36	Condition 14	The Company must, no later than six months prior to the Commencement of the Development, submit an Environmental Management Plan ("EMP"), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, Royal Society for the Protection of Birds Scotland ("RSPB Scotland"), WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers.	This document sets out the Offshore CEMP for approval by the Scottish Ministers.
	Condition 14	The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a. All construction as required to be undertaken before the Final Commissioning of the Works; and  b. the Development until the cessation of electricity generation (environmental management during decommissioning is addressed by the Decommissioning Program provided for by condition 3).	This Offshore CEMP, for approval by the Scottish Ministers, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
	Condition 14	The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3
		The EMP must set out the roles, responsibilities and chain of command for the Company personnel, any contractors or subcontractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Development.	Section 2.3
	Condition 14	It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a. Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 10);	Mitigation measures set out in Section 3 and 4
Section 36		A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
	Condition 14	Management measures to prevent the introduction of invasive non-native marine species;	Section 3.11



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
		d. A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	Section 3.14
		e. The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
		The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
		The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2
MS-00010140 Marine Licence Generating Station	Condition 3.2.2.11	The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with SNH, RSPB Scotland, WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.	This document sets out the Offshore CEMP for approval by the Licensing Authority.
		The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a. All construction as required to be undertaken before the Final Commissioning of the Works; and  b. The operational lifespan of the Works from the Final Commissioning of the Works until the cessation of electricity generation	This Offshore CEMP, for approval by the Marine Directorate, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
		The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
MS-00010140	Condition 3.2.2.11	The EMP must set out the roles, responsibilities and chain of command for the company personnel, any contractors or subcontractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works.	Section 2.3
Marine Licence Generating Station		It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 3.2.2.7);	Mitigation measures set out in Section 3 and 4
		b) A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
		c) Management measures to prevent the introduction of invasive non-native marine species;	Section 3.11
	Condition 3.2.2.11	d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	Section 3.14
		e) The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
MS-00010140 Marine Licence Generating Station	Condition 3.2.2.11	The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
		The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
MS-00010593 Marine Licence	Condition 3.2.2.10	The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with SNH, RSPB Scotland, WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.	This document sets out the Offshore CEMP for approval by the Licensing Authority.
		The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a) All construction as required to be undertaken before the Final Commissioning of the Works; and  b) The operational lifespan of the Works from the Final Commissioning of the Works until the cessation of electricity generation	This Offshore CEMP, for approval by the Marine Directorate, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
Offshore Transmission Infrastructure	Condition	The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3
	3.2.2.10	The EMP must set out the roles, responsibilities and chain of command for the company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works.	Section 2.3
		It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 3.2.2.6);	Mitigation measures set out in Section 3 and 4
MS-00010593 Marine		b) A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
Licence Offshore	Condition 3.2.2.10	<ul> <li>c) Management measures to prevent the introduction of invasive non-native marine species;</li> </ul>	Section 3.11
Transmission Infrastructure		d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including	Section 3.14



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
		details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	
		e) The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
	Condition 3.2.2.10	The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
		The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2



In addition to the specific consent requirements for the development of a CEMP, as set out in Table 1.1, this CEMP also includes information to discharge a number of other licence conditions related to environmental management. These are set out in Table 1.2

Table 1.2 Other Consent conditions to be discharged by this Offshore CEMP.

Condition Reference	Condition Text	Section of this CEMP
Incident Reporting (S36 Condition 6, MLs Condition 3.2.1.1 and Additional Landfall ML Condition 3.1.7)	In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent, the Company must provide written notification of the nature and timing of the incident to the Scottish Ministers within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Scottish Ministers within a period of time to be agreed by the Scottish Ministers.  In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this Licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Licensing Authority within a period of time to be agreed by the Licensing Authority.	Section 2.5
Implementation in accordance with approved plans and requirements of this consent (S36 Condition 7)	Except as otherwise required by the terms of this consent, the Development must be constructed and operated in accordance with the Application (taking into account amendments or updates made by the 2022 Variation Application), supporting documentation, including the Environmental Impact Assessment Report ("EIA Report") submitted by the Company on 15 August 2018, related documents lodged in support of the Application, and the 2022 Variation Application submitted by the Company on 22 November 2022.	Section 3
Compliance with the Application and approved plans (MLs Condition 3.1.1 and Additional Landfall ML 3.1.1)	The Licensee must at all times construct, operate and maintain the Works in accordance with this licence, the Application and the plans and programmes approved by the Licensing Authority.  The Licensee must only construct the Works in accordance with this licence, the application and any plans or programmes approved by the Licensing Authority unless otherwise authorised by the Licensing Authority.	Section 3



Condition Reference	Condition Text	Section of this CEMP
Transportation for site inspections (S36 Condition 8)	As far as reasonably practicable, the Company must, on being given reasonable notice by the Scottish Ministers (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Scottish Ministers to inspect the Site.	Section 4.3
Inspection of the Works (MLs Condition 3.1.12)	Any persons authorised by the Licensing Authority must be permitted to inspect the Works. As far as reasonably practicable, Licensee must, on being given reasonable notice by the Licensing Authority (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Licensing Authority to inspect the Works. The licensee shall ensure that the Works are maintained at all times in good repair.	Section 4.1 and 4.3
Inspection of the Works. (Additional Landfall ML Condition 3.3.8)	Any person authorised by the Licensing Authority must be permitted to inspect the site at any reasonable time	Section 4.3
Force Majeure (MLs Condition 3.1.4)	Should the Licensee or any of its agents, contractors or sub-contractors, by any reason of force majeure deposit anywhere in the marine environment any substance or object, then the Licensee must notify the Licensing Authority of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed). Force majeure may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the OSPAR Convention, the Licensing Authority is obliged to immediately report force majeure incidents to the OSPAR Commission.	Section 2.5
Chemical usage (MLs Condition 3.1.8)	The Licensee must seek prior written approval from the Licensing Authority for any chemicals in an open system which are to be utilised in the construction, operation and maintenance of the Works. Requests for approval must be submitted in writing to the Licensing Authority no later than one month prior to its intended use or such other period as agreed by the Licensing Authority. The Licensee must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority. If the proposed chemical is on the OCNS list, the approval request must include the chemical name, volume or quantity to be used, the OCNS list grouping or rank and the proposed frequency of use. If the proposed chemical is not on the OCNS list, the approval request must include details of chemical to be used, including safety data sheet, depth and current at the Site, quantities or	Section 3.8



Condition Reference	Condition Text	Section of this CEMP
	volumes and the proposed frequency of use. The Licensee must notify the Licensing Authority of the types of chemicals to be used in a closed containment system prior to use. The Licensee should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported to the Licensing Authority as soon as practicable.	
Fluorinated greenhouse gases (MLs Condition 3.1.9)	The Licensee must ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases ("F-Gas Regulation") or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases. The Licensee must take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases. Where leakage of fluorinated greenhouse gases is detected, the Licensee must ensure that the equipment is repaired without undue delay. The Licensee must ensure that all equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO2 equivalent or more and not contained in foams is checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Licensing Authority annually and immediately in the event of discovery of leakage. Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Licensee must ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Licensing Authority must be informed of the date of discovery, date of repair and date of inspection.	Section 3.17
Environmental Protection (MLs	The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to minimise damage to the Scottish marine area caused as a result of the undertaking of the Licenced Activities. The Licensee must ensure that all personnel adhere to the SMWWC where appropriate during all construction, operation and maintenance activities authorised under this licence.  The Licensee must ensure that any debris or waste material placed below MHWS level during the construction of the Works is removed from the Site, unless agreed otherwise by the Licensing Authority,	Sections 3.13 & 3.2
Condition 3.1.10)	as soon as is reasonably practicable, for disposal at a location above the MHWS level approved by SEPA or such other relevant authority if disposal is to take place out with Scotland.  The Licensee must ensure that, where practicable, all substances and objects deposited during the	Section 3.14 Section 3.13 &



Condition Reference	Condition Text	Section of this CEMP
	Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.	3.16
	The Licensee must ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented during the construction, operation and maintenance of the Works.	Section 3.11
	The Licensee must ensure that if oil based drilling muds are utilised they must be contained within a zero discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the Site need not be removed from the seabed.	Section 3.12
	All materials used during the execution of the Licenced Activity must be inert and must not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.	Section 3.13
Environmental Protection (Additional Landfall ML Condition 3.1.5,	The Licensee must remove the materials from below the level of Mean High-Water Springs, or make such alterations as advised by the Licensing Authority, within one month of notice being given by the Licensing Authority at any time it is considered necessary or advisable for the safety of navigation, and not replaced without further approval by the Licensing Authority. The Licensee shall be liable for any expense incurred.	Section 3.16
3.1.10, 3.3.2 and 3.3.7)	The Licensee must ensure that any debris or waste materials arising during the course of the Licenced Activity are removed for disposal at an approved location above the tidal level of Mean High-Water Springs.	Section 3.14
	The Licensee must ensure appropriate steps are taken to minimise damage to the beach and foreshore by the Licenced Activity.	Section 3.13
Bunding and storage facilities (MLs Condition 3.2.1.2)	The Licensee must ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works and associated equipment into the marine environment.	Section 3.10
Marine Mammals	Prior to the Commencement of the Works, the Licensee must appoint an MMO. When appointed, the MMO must, as a minimum, maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy	Section 3.2.2



Condition Reference	Condition Text	Section of this CEMP
3.2.2.3 and 3.2.2.2)	activities. The Licensee must provide the Licensing Authority with the MMO records no later than six months following Commencement of the Works, and thenceforth at such other periods as agreed with the Licensing Authority.	
Noise Registry (MLs, Condition 3.2.2.4 and 3.2.2.3)	The Licensee must complete and submit a proposed activity form in the online Noise Registry for all aspects of the Works that will produce loud, low to medium frequency (10 Hz-10 kHz) impulsive noise no later than seven days prior to Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, the Licensee must complete and submit a new proposed activity form no later than seven days prior to Commencement of the Works.	Section 3.2.1
	Prior to the Commencement of the Works, the Licensee must, at its own expense, and with the approval of the Licensing Authority in consultation with SNH, appoint an independent ECoW. The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this licence to the Licensing Authority, in sufficient time for any preconstruction monitoring requirements, and remain in post until agreed by the Licensing Authority. The terms of appointment must also be approved by the Licensing Authority in consultation with SNH. The terms of the appointment must include, but not be limited to:  a. Quality assurance of final draft versions of all plans and programmes required under this	
Environmental Clerk of Works (S36 Condition 27, MLs Condition 3.2.2.24, 3.2.2.21)	<ul> <li>b. Responsible for the monitoring and reporting of compliance with the licence conditions and the environmental mitigation measures for the Works authorised by this licence;</li> <li>c. Provision of on-going advice and guidance to the Licensee in relation to achieving compliance with licence conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP;</li> </ul>	Section 2.3.10
	<ul> <li>d. Provision of reports on point b &amp; c above to the Licensing Authority at timescales to be determined by the Licensing Authority;</li> <li>e. Induction and toolbox talks to onsite construction teams on environmental policy and procedures, Including temporary stops and keeping a record of these;</li> </ul>	
	f. Monitoring that the Works are being constructed in accordance with the plans and this licence, the Application and in compliance with all relevant regulations and legislation;  g. Reviewing and reporting incidents/near misses and reporting any changes in procedures	



Condition Reference	Condition Text	Section of this CEMP
	as a result to the Licensing Authority; and  h. Agreement of a communication strategy with the Licensing Authority.	
Fisheries Liaison Officer (S36 Condition 28, MLs Condition 3.2.2.25 and 3.2.2.22)	Prior to the Commencement of the Works, an FLO, must be appointed by the Licensee and approved, in writing, by the Licensing Authority (following consultation with SFF and the FTCFWG). The FLO must be appointed by the Licensee for the period from Commencement of the Works until the Final Commissioning of the Works. The identity and credentials of the FLO must be included in the EMP (referred to in condition 3.2.2.10). The FLO must establish and maintain effective communications between the Licensee, any contractors or sub-contractors, fishermen and other users of the sea during the construction of the Works and ensure compliance with best practice guidelines whilst doing so. The responsibilities of the FLO must include, but not be limited to: a. Establishing and maintaining effective communications between the Licensee, any contractors or sub-contractors, fishermen and other users of the sea concerning the overall Works and any amendments to the CMS and site environmental procedures; b. The provision of information relating to the safe operation of fishing activity on the site of the Works; and c. Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.	Section 2.3.11
Transportation Audit Report (ML Condition 3.2.3.1)	The Licensee must submit to the Licensing Authority a detailed TAR for each calendar month during the construction phase of the Works. The TAR must be submitted within 14 days of the end of each calendar month.  The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of this licence) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.  If the Licensee becomes aware of any substances, objects or materials on the TAR that are missing, or becomes aware that an accidental deposit has occurred, the Licensee must notify the Licensing Authority as soon as practicable. The Licensee must undertake such survey as directed by the Licensing Authority to locate the substances, objects and materials. If the Licensing Authority is of the view that any accidental deposits have occurred and should be removed, then the materials must be removed by the Licensee as soon as is practicable and at the Licensee's expense.	Section 3.16
Materials used during the works.	The Licensee must submit a written report regarding the materials used during the works to the Licensing Authority. The written report must be submitted on completion of the works and on the forms provided by the Licensing Authority no later than 31 October 2029.	Section 3.16



Condition Reference	Condition Text	Section of this CEMP		
Landfall ML Condition 3.4.1 and 3.3.3)	The Licensee shall ensure that prior to the expiry of the licence, the works must be altered by taking all temporary structures to a place above Mean High Water Springs.			
Copies of the Licence (Additional Landfall ML Condition 3.3.5)	The Licensee must ensure that a copy of the licence is given to each contractor and sub-contractor employed to undertake the Licenced Activity.			
Plant, equipment and spills to sea (Forth Ports ML Condition 1.1)	Should any plant be unable to be recovered from the water or should there be any loss of equipment or pollution into the water it should be reported to FTNS immediately on 01324 498584 or by VHF channel 71.			
RAMS (Forth Ports ML Condition 1.3)	inethod Statement and Nisk Assessment for any works, for Forth Forts phot approval. Any reasonable			
	Forth Ports and its duly authorised officers shall have the right to:-  - inspect the works and all plans and specifications in connection therewith, prior to commencement of the works and at all reasonable times thereafter.	Section 4.3		
Forth Ports ML Conditions 12.1, 12.2 and 12.3.	<ul> <li>require modification, addition or alteration to the works, if in their opinion such action is necessary; and</li> <li>receive a copy (in human readable form) of all results from all investigations, soil tests, bores, seismic surveys, etc., involved in the works.</li> </ul>			
	·	Section 2.2.1		
Environmental Protection (Forth Ports ML Condition 17.5 and 17.6)	In the event of environmental pollution occurring such as to cause a nuisance, whether on land or ashore or in the sea in connection with operations on, in, about or in connection with the works, carry out or make arrangements for carrying out of all measures considered to be reasonably necessary in the opinion of Forth Ports for the clearance and removal of any such pollution and the Licensee shall ensure that any damage caused as a result thereof is made good and if, after due notice, the Licensee	Section 2.2.1		



Condition Reference	Condition Text	Section of this CEMP
	fails to take the required measures, Forth Ports may carry out the required measures and shall have the power to recover the costs thereof directly from the Licensee.	
	On completion of the works, ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.	Section 2.2.1



# 1.4 Linkages with other Consent Plans and Consent Conditions

The CEMP will be consistent with a number of other consent plans and consent conditions. Details of the linkages and relevant cross references are set out in table 1.3.

It should be noted that information is not repeated across consent plans, rather, where pertinent information is available in linked consent plans, the relevant consent plans are referred to. The plans are not required for approval of the CEMP but are provided for ease of reference.

Table 1-3 CEMP links with Other Consent Plans and documents

Reference	Description and relevance to the CEMP	Crossed Referenced in this Offshore CEMP
ConstructionMethodStatement (S36 Condition10, MLs Condition3.2.2.7and 3.2.2.6)	Details the construction methods, setting out good practice construction measures and how mitigation measures proposed in the EIAR are being implemented during construction	Section 2.2
Fisheries Management and Mitigation Strategy (S36 Condition 26, MLs Condition 3.2.2.23 and 3.2.2.20)	Sets out the mitigation strategy relating to the commercial fishing industry in order to minimise or avoid effects on fishing vessels and activities	Section 3.15
Protocol for Archaeological  Discoveries (S36 Condition 29 and MLs Condition 3.2.2.26 and 3.2.2.23)	Sets out the reporting protocol in the event of marine archaeological discoveries being made prior to, during or following construction	Section 3.3
Cable Plan (S36 Condition 19 and ML Condition 3.2.1.16 and 3.2.2.15)	Contains details on environmental sensitivities and design considerations to mitigate, as far as possible, the effects of cable laying and associated cable protection during installation and operation of the Development	Section 3.13
Operation and	Sets out the procedures and good working practices for operations and the	Not considered in this CEMP



Reference	Description and relevance to the CEMP	Crossed Referenced in this Offshore CEMP
Maintenance Programme (S36 Condition 16, MLs Condition 3.2.2.13 and 3.2.2.12)	maintenance of the WTG's, substructures, and inter-array cable network of the Development considering sensitive environmental periods.	as this document only applies to the construction phase.
Project Environmental Monitoring Programme (S36 Condition 24 MLs Condition 3.2.2.21 and 3.2.2.18)	Sets out measures by which Inch Cape will monitor the environmental impacts of the OWF.  Inch Cape environmental management, mitigation and monitoring commitments have taken account of the results and any recommendations of pre-construction monitoring and will continue to be refined depending on the results of the ongoing program of construction and monitoring described in the PEMP.	Section 3.2
Piling Strategy (S36 Condition 11, ML Condition 3.2.2.8 and 3.2.2.7)	Piling methods and programme are detailed and include the mitigation of the effects on noise sensitive species.	Section 3.2
Vessel Management Plan (S36 Condition 15 MLs Condition 3.2.2.12 and 3.2.2.11)	Combined with the Navigational safety Plan, the VMNSP, provides the management and coordination of vessels to mitigate the impacts on other sea users.	Section 3.2 & 3.5



# 1.5 CEMP Management of Change Process

This CEMP is a live document and will be regularly revised at intervals agreed with Scottish Ministers, to ensure that the information is kept up to date. It is expected that following a review, there may be a requirement to undertake a non-material or material update of the document.

It is anticipated that a material change would be defined as one that fundamentally affects key information being communicated in the CEMP; a change in proposed mitigation or monitoring commitments; or a change that may increase environmental risk. A non-material change would be expected to be one that is communicated for information only; does not fundamentally affect assumptions made based on previous information provided; does not result in deviation from agreed commitments; or does not increase the level of environmental risk.

Where an update is required, MD-LOT will be consulted to determine whether the level of changes signifies a material change to an approved plan that requires formal consultation, or a non-material update to be approval by MD-LOT. MD-LOT may wish to liaise with statutory stakeholders for advice to assist making these determinations.

It is anticipated that the review and update process will be as follows:

- a) Document review undertaken by ICOL (triggered by influencing factor listed above).
- b) Need for an update of document communicated to MD-LOT and ICOL to inform MD-LOT whether it is deemed it as material or non-material.
- c) MD-LOT to notify ICOL whether they are in agreement of the materiality of the change (and therefore whether or not formal consultation will be required).
- d) If change is considered non-material, ICOL will provide an updated CEMP for MD-LOT to review, approve and make available.

Or:

e) If change is considered material, ICOL updates the CEMP, and a formal consultation on the updated CEMP is undertaken.

A separate Operations and Maintenance Environmental Management Plan (OEMP) will be in place prior to the final Commissioning of the Development for the commencement of the Operational Phase. ICOL will liaise with MD-LOT to ensure that any relevant commitments made during the application or preconstruction phases are suitably followed through into the operational phase.



# 2 Environmental Management Framework

This section details to those involved in the construction of the Inch Cape Project the Environmental Management framework required to manage environmental commitments made by ICOL, mitigation requirements as identified in the Environmental Impact Assessment Report (EIAR), and the requirements of the consent's conditions, as detailed in section 1.3 of this document.

Furthermore, this section aims to identify good practice and requires that ICOL and its Contractors comply with the relevant and current environmental and maritime legislation as standard.

This section sets out the Environmental Management framework for the Project, under the following areas:

- Policies
- Construction Management
- Environmental Roles and Responsibilities
- Environmental Reporting
- Environmental Incidents and Non-Compliance Procedures
- Environmental Competency and Training of Personnel

Contractors, notwithstanding their duties under the CDM Regulations shall generate an environmental management plan (or equivalent) based on this one, that will be submitted for review and approval by ICOL and ICOL ECoW in advance of construction. Contractor EMPs where the specific environmental requirements and obligations established in this CEMP have not been fully or reasonably considered by the Contractor will not be accepted by the Inch Cape project.

# 2.1 Inch Cape HSE Charter

ICOL have set out an HSE Charter with regards to health, safety and environmental management.

ICOL is committed to:

- Protecting the environment, preventing pollution and minimising adverse environmental impacts.
- Play its part as a responsible business by achieving the highest possible standard of environmental management and by embedding sustainability in all its activities.
- Effectively communicating with our supply chain and stakeholders, and to engage with the community to enable inclusive input in achieving the highest possible environmental



standards.

- Considering the life cycle of materials from design to decommissioning.
- Promoting the 17 UN Sustainable Development Goals in all our activities.

## 2.2 Construction Management

Inch Cape's Principal Contractors, Contractors and their Subcontractors, in undertaking the construction of the Inch Cape Project shall ensure compliance with this CEMP and all relevant environmental and maritime legislation.

All necessary subsequent licences and permissions required for construction works (e.g. EPS licences, dredging licences, etc) shall be obtained by the corresponding Principal Contractor, unless otherwise agreed with ICOL.

ICOL require that design embedded measures and adherence to good working practice is applied by all Principal Contractors, Contractors (and their Subcontractors) throughout the construction phase, seeking to minimise the risks to the environment.

The implementation of such measures will be managed by appropriately qualified and experienced Contractor Environmental Advisors (CEAs), appointed by the Principal Contractor throughout the duration of the construction period.

The relevant CEA is required to liaise with the Inch Cape Environmental Clerk of Works (ECoW) as detailed in Section 2.3.10 below. The ECoW will review and approve consent plans and will oversee and monitor compliance with consent conditions. The ECoW will be an independent party and will provide regular reporting on compliance monitoring, good practice and mitigation measures, both to Inch Cape's Environmental Lead and Consents Team and to MD-LOT throughout the construction phase of the Inch Cape Project.

Principal Contractors, Contractors and Subcontractors will also be required to produce their own EMPs that are specific to their works on the Inch Cape Project and that align and comply with this CEMP. These EMPs, notwithstanding the Contractors duties under the CDM Regulations will be submitted to ICOL in advance of construction, for review and acceptance by ICOL and the ECoW.

ICOL will organise a kick off meeting with the different Contractors to explain and clarify the contents of this CEMP.

Each Principal Contractor is required to appoint a spill response subcontractor prior to offshore works commencement unless other arrangements are agreed with ICOL (e.g. Inch Cape may appoint the Spill Response Contractor to cover the overall project scope). This information will be updated in the next revision



of this document.

Good working practices and construction methodologies that will be applied during the construction of the Inch Cape Project are set out in the Construction Method Statement (CMS) ICOL-INT-EC-OFC-004-INC-PLA-001.

#### 2.2.1 Landfall Works

At landfall, in addition to the requirements and obligations placed by the different sections of this CEMP on ICOL and the Contractors to conduct these works, there will be an additional interface with the onshore construction works ongoing at the time, that must be adequately managed. There are also additional obligations (that only apply to these works) that are further explained in the following subsections.

## 2.2.1.1 Onshore Construction Environmental Management Plan (Onshore CEMP)

ICOL Onshore Transmission Works – Construction Environmental Management Plan (Onshore CEMP) (IC02-INT-EC-ONC-004-INC-PLA-001) contains the requirements and provides practical guidance on management of the potential environmental risks and impacts associated with the construction of the Onshore Transmission Works. This document has been prepared by ICOL in support of the discharge of Condition 4 of Planning Permission in Principle 21/01474/PPM.

Contractors undertaking the Landfall Works shall ensure that the relevant requirements and mitigation measures on the ICOL Onshore CEMP are also considered and included in their risk assessments, method statements and the EMP and other relevant documentation that will be implemented during their participation on the landfall works.

#### 2.2.1.2 Site investigation and surveys

ICOL shall submit to the Licensing Authority and Forth Ports a copy of all results from all investigations, soil tests, bores, seismic surveys, etc. involved in the works at landfall.

### 2.2.1.3 Risk Assessment and Method Statement

ICOL, prior to commencement of each stage of the works, shall provide Forth Ports with a Method Statement and Risk Assessment for any works, for Forth Ports' prior approval. Any reasonable requirements of the Forth Ports Harbour Master should be addressed in advance of any such works being undertaken.

Contractors will provide the required documentation to ICOL 4 weeks in advance of commencement



of the works so this obligation can be fulfilled.

#### 2.2.1.4 Flood Risk at Landfall Works

ICOL commissioned the undertaking of a Flood Risk Assessment (FRA) (IC02-INT-EC-ONC-012-INC-RPT-002) to assess the potential flood risk to the proposed onshore construction works. Whilst the FRA reviewed and screened a full range of flood risks, it focused on the coastal flood risk, and in particular three aspects: extreme sea levels, wave overtopping flows and their effects, and direct airborne discharge onto the site.

Prior to commencement of landfall works, the Contractor will submit to ICOL for approval, a **Scheme for contingency planning to deal with a flood event** during the construction period when the coastal rock armour defence has been deconstructed. The plan will be submitted no later than 6 weeks ahead of commencement of works. Works will be carried out in accordance with the approved scheme.

The removal of the rock revetment will be designed to prevent breach by seawater. Additional mitigation may include but not be limited to measures such as monitoring the storm surge forecast and weather forecast prior to and during construction activity, to prevent surges from breaching the rock revetment during construction. Once reinstated, the rock revetment will be returned to the same profile as found prior to commencement of the Inch Cape works.

The Contractor will be responsible for implementing a localised coastal flood warning system during landfall works in consultation with SEPA.

### 2.2.1.5 Environmental Protection at Landfall

Where landfall works operations result in a pollution event either on land or in the sea in connection with operations on, in, about or in connection with the works, ICOL and the Contractor shall ensure that arrangements are made for carrying out of all measures considered to be reasonably necessary in the opinion of Forth Ports for the clearance and removal of any such pollution. (Incident reporting will be conducted as described in section 2.5 of this document).

Contractor will ensure any environmental impacts caused by the activities are remediated to the satisfaction of ICOL and Forth Ports.

The Contractor (and Subcontractors) shall ensure that appropriate steps are taken to minimise damage to the beach and foreshore by the works. On completion of the works, the Contractor shall ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.



# 2.3 Roles and Responsibilities

This section sets out the roles and responsibilities of all relevant Development personnel during the construction phase, in relation to the delivery of the consent requirements, management of environmental aspects and EIA Report commitments and compliance with this CEMP. Those roles have been identified as shown in Figure 2.1 and listed below.

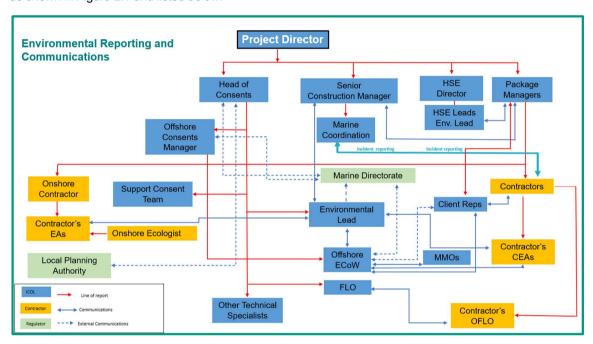


Figure 2-1: Inch Cape Organogram

Key roles in Inch Cape include:

- Inch Cape Project Director
- Inch Cape Senior Construction Manager
- Inch Cape Package Managers
- Inch Cape HSE Director
- Inch Cape Head of Consents
- Offshore Consents Manager
- Inch Cape Client Representatives



• Inch Cape Lead Marine Coordination

Supporting roles to this structure reporting to the Inch Cape Lead Consents Manager are:

- Inch Cape Environmental Lead
- Inch Cape Offshore Consents Manager
- Inch Cape Fisheries Liaison Officer (FLO)
- Inch Cape Environmental Clerk of Works (ECoW)
- Inch Cape Archaeological Consultant
- Inch Cape Consents Team

#### Other roles are:

- Contractors
- Contractor Construction Environmental Advisor (CEA)
- Offshore Fisheries Liaison Officer (OFLO)

Inch Cape Principal Contractors, Contractors (and Subcontractors) carrying out the construction activities are responsible for complying with this Offshore CEMP. Contractors shall write their own EMPs based on the requirements described in this document.

## 2.3.1 Inch Cape Project Director

Reports to: ICOL Board

The Project Director is accountable to the Inch Cape Board and has overall responsibility for ensuring the project is built and operated in accordance to protecting the environment, preventing pollution and minimising adverse environmental impacts.

The Project Director has overall responsibility for project delivery and governance.

## 2.3.2 Inch Cape HSE Director

Reports to: Project Director

Is the central point of contact for the authorities regarding health, safety and environmental related issues and will liaise with the Environmental Lead regarding environmental incidents and incident response and environmental related matters.



## 2.3.3 Inch Cape Environmental Lead

Reports to: HSE Director & Head of Consents

The Environmental Lead is part of a team responsible for monitoring compliance with this CEMP, the project consents and environmental legislation, on behalf of Inch Cape.

The responsibilities extend across both offshore and onshore activities (not covered in this CEMP), to ensure a consistent approach to compliance and environmental management is applied. The Environmental Team also includes the Environmental Clerk of Works (ECoW), the Fisheries Liaison Officer (FLO) and any other technical disciplines as required.

The Environmental Lead will support the project by:

- Reviewing Contractor project documentation including but not limited to, EMPs, MPCPs, vessel bridging documents, waste management plans, offshore bunkering plans and risk assessments, method statements and installation manuals for the different scopes of work to ensure the relevant consent requirements are adequately captured by the documentation to be used by the Contractors while conducting the work.
- Providing environmental and compliance input to internal and external meetings, including HIRAs, readiness reviews, pre-mobilisation and progress review meetings, lessons learned, etc.
- Generating the required ICOL environmental related documentation including but not limited to this CEMP and MPCP.
- Act as the CEA for the scopes of work where/if ICOL is Principal Contractor.

The Environmental Lead is a subject matter expert with regard to Environmental Management and legislation. The Environmental Lead will oversee/conduct Inch Cape environmental audits, inspections and reviews in relation to:

- Incident response readiness, including observing Contractor environmental drills and exercises, such as drills to test vessel Shipboard Oil Pollution Emergency Plans (SOPEPs) and Contractor MPCP and pollution control measures.
- Control of work processes, discharges to sea, incident reporting, incident investigation, permanent and temporary deposits, environmental training and competency of project personnel, waste management, fuel and chemical storage and management, Invasive Non-Native Species, air emissions, marine archaeology, marine wildlife, dropped object preparedness and consent documentation and awareness.
- · Contractor documentation including risk assessments and method statements in advance of



any works, for activities that may pose an environmental risk.

The Environmental Lead will be provided access to Contractor's Marine and Vessel Inspection documents (CMID) in advance of audits and inspections.

The Environmental Lead is the key Inch Cape environmental contact for environmental incidents and will liaise with the ECoW, Package Managers, Marine Co-ordinator, HSE Director and Regulators, in accordance with this CEMP.

The Environmental Lead will liaise with the Inch Cape HSE Team to ensure a consistent approach and standards are adopted.

The Environmental Lead and ECoW will work together to produce environmental training material regarding environmental and consents compliance, to be presented to Inch Cape Management, Client Representatives and Contactors.

# 2.3.4 Inch Cape Senior Construction Manager

Reports to: Project Director

The Inch Cape Senior Construction Manager has the following responsibilities in relation to the CEMP:

- Require that sufficient resources and processes are in place across the construction packages to deliver/comply with this CEMP and to manage environmental risks.
- Require that the Inch Cape ECoW is integrated into the daily project reporting and notifications received, in order to monitor Contractor compliance with the consents.
- Require that Client Representatives provide support to the Environmental Lead and Offshore ECoW.
- Provide input in environmental incident and Non-Compliance investigations as required.

# 2.3.5 Inch Cape Package Managers

Report to: Project Director

The Inch Cape Package Managers have the following responsibilities in relation to the CEMP:

- Establishing contractual obligations for Contractors in relation to this Offshore CEMP.
- Requiring that sufficient resources and processes are in place across their work package to deliver/comply with the Offshore CEMP and to manage potential environmental risks.



- Ensure that any corrective actions arising from environmental incidents and/or noncompliances are implemented.
- Sign off Non-compliance Reports.
- Require that Client Representatives provide support to the Environmental Lead and Offshore ECoW.
- Require that the Inch Cape Offshore ECoW is integrated into the daily project reporting and notifications received, in order to monitor Contractor compliance with the consents.
- Ensuring reviews are conducted on Contractors environmental performance and consent compliance.

## 2.3.6 Inch Cape Client Representatives

Report to: Package Managers

The Client Representatives have the following responsibilities in relation to the CEMP:

- Oversee Contractor reporting of environmental incidents, near misses and non-compliances in accordance with this CEMP.
- Ensure that the Marine Archaeology procedures are followed in the event of an archaeological discovery or the breach on an Archaeological Exclusion Zone (AEZ).
- Observe environmental protection measures and raise any concerns with the Contractor/vessel.
- Actively participate in environmental matters submitting environmental observations (SOCs/HOCs) either directly to the Contractor, with regards to a matter on board or raised directly to ICOL Environment Lead/ECoW whatever is deemed suitable.
- Assist with conducting inspections/checks of vessel and assets.
- Regularly interface with the Environmental Lead and ECoW as necessary.

## 2.3.7 Inch Cape Lead Marine Coordinator

Reports to: Senior Construction Manager

The Inch Cape Lead Marine Coordinator (and Duty Marine Coordinator) is responsible for the monitoring of people, vessels and offshore structures with regards to the safe preparation and



execution of the offshore construction activities. Key responsibilities relevant to this CEMP include the following:

- First point of contact for all offshore environmental emergencies and incident reporting.
- Management and coordination of marine coordinators and distribution of incident notifications within ICOL.
- Issue navigational safety notifications, including Notice to Mariners (NtMs) and Notice to Airmen (NOTAMs).
- Generate the Vessel Report, prior to mobilisation and weekly throughout construction.

# 2.3.8 Inch Cape Head of Consents

Reports to: Project Director

Manages a team responsible for monitoring and reviewing compliance with the project consents and environmental legislation, on behalf of Inch Cape.

The responsibilities extend across both Offshore and Onshore activities, to ensure a consistent approach to compliance and environmental management is applied. The team includes the Environmental Lead, the Environmental Clerk of Works (ECoW), the Fisheries Liaison Officer (FLO) and any other technical disciplines required (e.g. MMO) and a supporting Consents team as required.

Further responsibilities of the Head of Consents are:

- Primary contact for MD-LOT, statutory bodies and stakeholders (excluding the responsibilities undertaken by Inch Cape's ECoW).
- Where necessary, managing the process of obtaining new consents.
- Attendance at ICOL leadership meetings, providing environmental and consents compliance input.

## 2.3.9 Inch Cape Offshore Consents Manager

Reports to: Head of Consents

Main responsibilities are:

- Primary contact for FRTRAG
- Reporting to MD-LOT and FTRAG in respect of the PEMP.



- Manage the discharge of Marine Licence conditions
- Co-ordinate the preparation and submission of Consent Plans, as required
- Attendance at Inch Cape internal and external meetings, providing compliance input
- Liaise with the ECoW for the review and approval of Consent Plans.

# 2.3.10 Inch Cape Environmental Clerk of Works (ECoW)

Reports to: Offshore Consents Manager

The ECoW is a key role defined under condition 27 of the S36 and conditions 3.2.2.24 and 3.2.2.21 of the Generation and OfTI Marine Licences, which requires that an ECoW be appointed prior to the Commencement of the Works.

The Offshore ECoW must be appropriately qualified and a member of a recognised organisation such as the Chartered Institute of Ecology and Environmental Management or the Institute of Environmental Management and Assessment.

The responsibilities of the ECoW include, but are not limited to:

- Review and quality check all consents plans and programmes (including but not limited to CMS, CEMP, CaP, PEMP, the PS and the VMNSP) and thereafter monitor compliance with the same
- Report on compliance to Inch Cape and to MD-LOT (within the remit of the Offshore ECoW consent conditions).
- Liaise with MMO during the piling activities.
- Liaise with the Fisheries Liaison Officer (FLO) during incidence of non-compliance with the Fisheries Mitigation and Management Strategy (FMMS)
- Liaise with the Archaeological Consultant following the discovery of a potential find or following an infringement of an Archaeological Exclusion Zone (AEZ)
- Liaise with MD-LOT, statutory bodies and stakeholders, as required.
- Provide the Environmental Lead with ad-hoc advice, giving due regard to the independent role and overall remit of the ECoW
- Review and approve relevant contractor documents from a compliance perspective, develop
  training materials on compliance with consent plans, the Marine Licences and Section 36
  Consent, for use by Inch Cape personnel in inductions and other awareness campaigns.



Attend internal and Contractor meetings, providing compliance guidance.

The ECoW role will be carried out by a party appointed by the Licensee subject to the written approval of the Licensing Authority.

Appointed ECoW: Stuart McCallum (Natural Power Consultants Ltd.)

## 2.3.11 Inch Cape Fisheries Liaison Officer (FLO)

Report to: Offshore Consents Manager

The FLO has the following responsibilities in relation to the CEMP:

- Provide information relating to the safe operation of fishing activity within and in the vicinity of the Project Area.
- Participate in the Forth and Tay Commercial Fisheries Working Group (FTCFWG), to facilitate commercial fisheries dialogue on behalf of Inch Cape.
- Monitor compliance with good practice guidelines and the Fisheries Management and Mitigation Strategy (FMMS).
- Liaise with Inch Cape ECoW and Offshore Fisheries Liaison Officers (OFLOs) regarding compliance with the FMMS.
- Develop material on compliance with the FMMS to Inch Cape personnel for use in inductions, presentations, production of awareness material, regarding good practice in managing coexistence and good relations between all construction personnel and activities and the commercial fishing vessels.

Appointed FLO: Peter Berney (Natural Power Ltd).

## 2.3.12 Inch Cape Archaeological Consultant

Reports to: Offshore Consents Manager

The Archaeological Consultant will be responsible for advising Inch Cape on all archaeological matters relating to the Project that might impact upon archaeological and cultural heritage resources.

The Archaeological Consultant has the following responsibilities:

Assume clear role of interface between Inch Cape and Historic Environment Scotland (HES)
in the event of a potential find or an infringement of an AEZ, as detailed in the PAD.



- Liaise with the ECoW in the event of a potential find or an infringement of an AEZ.
- Liaise with the ECoW regarding compliance with the PAD.

In relation to reporting of finds of archaeological interest, the Archaeological Consultant will:

- Brief Inch Cape personnel and Key Contractor personnel on the types of archaeological finds and features that may be encountered and appropriate measures for interim conservation and safe storage.
- Advise Inch Cape on the identification of finds and features and, if reasonably practicable, the character of their seabed locations.
- Advise Inch Cape on material conservation of any recovered finds and any appropriate actions to be taken; and
- Where appropriate, pass on all details and records associated with any discoveries to MD-LOT and Historic Environment Scotland.

Appointed Archaeological Consultant: TBC

# 2.3.13 Inch Cape supporting Consents Team

Report to: Head of Consents

The Inch Cape Consents Team has the following responsibilities:

- Request any variations to consents or licences as required.
- Manage the discharge of the Section 36 Consent and Marine Licences conditions.
- Act as primary contact for MD-LOT, statutory bodies and stakeholders (excluding the reporting duties undertaken by the Environmental Lead and ECoW)
- Co-ordinate the preparation and submission of revised Consent Plans, as required.
- Attendance at Inch Cape internal and external meetings, providing compliance input.
- Liaise with the ECoW for the review and approval of Consent Plans.
- Support the Environmental Team with audits and inspections and review of key Contractor documentation.



## 2.3.14 Contractors

Report to: Inch Cape Package Managers and Senior Construction Manager (as appropriate)

All Contractors (Principal Contractors, Contractors and Subcontractors), notwithstanding their specific duties under the CDM Regulations shall ensure that their project documents and installation procedures align with the Inch Cape Consents, and associated Consent Plans (including this CEMP).

Contractors will produce their own EMP (or equivalent) relevant to their scope of work in the project, based on the content and requirements of this plan. Compliance with this CEMP is a contractual requirement.

Contractor responsibilities include but are not limited to:

- Ensuring that sufficient and suitably qualified resources are in place to manage compliance
  with all relevant Inch Cape Consents and Licences, as well as the environmental
  requirements of the EIA Report (EIAR), and all relevant maritime and environmental
  legislative requirements pursuant to the Contractor's activity.
- Producing emergency response and safety and environmental management system bridging
  documents (Vessel bridging documents) for each vessel. These documents will summarise
  the key environment requirements relevant to the specific scope of work of the vessel and
  the activities of the construction/installation teams onboard, contain all the relevant forms and
  contact details to allow timely incident notifications, and signpost the corresponding
  overarching environmental documentation both from the Principal Contractor and ICOL as
  required.
- Ensuring that inductions are provided and that they provide an overview of the Inch Cape consents and licences requirements, cover project environmental management matters, and the reporting of environmental incidents and non-compliances.
- Ensuring that all Contractor personnel are made aware of environmental matters and the need to comply with the Contractors EMP(s) and all applicable Inch Cape Consent Plans and relevant environmental legislation.
- Having task specific method statements and risk assessments in place in advance of works, to ensure compliance with the Contractor EMP.
- Ensuring that the contracting strategy does not dilute the message of the need to adhere to
  the requirements of this document and in turn the Contractor EMP and task specific method
  statements and risk assessments.
- Monitoring compliance with the Contractor EMP and task specific method statements and risk assessments during construction. Compliance monitoring activities should include (but



not be limited to) regular audits, weekly inspections and drills.

- Producing and maintaining records of the above and making these records available to the Inch Cape ECoW and Environmental Lead.
- Reporting any environmental non-compliance directly to the Client Representative and to the Inch Cape ECoW.
- Ensuring all most current Consent Plans are available onboard (either as hard copies or electronically) the relevant Contractor vessels engaged on the Project.
- Liaising with the Inch Cape ECoW, Environmental Lead, and FLO, where required.
- Facilitate inspections of Contractor vessels / sites, etc. pre-mobilisation and during construction.

Appendix A lists the different deliverables Contractors are required to provide as to fulfil the requirements, commitments, and obligations for ICOL on the Inch Cape project.

# 2.3.15 Contractor Construction Environmental Advisor (CEA)

Report to: Principal Contractor

Principal Contractors are required to appoint a Construction Environmental Advisor (CEA) suitably qualified, competent and with proven experienced in offshore construction projects. The Construction Environmental Advisor will be a full-time resource for the duration of the Contractor's construction works and, if required, during the design period (unless otherwise agreed with Inch Cape).

The Contractor shall provide evidence of competence of the Construction Environmental Advisor, to the Employer via submission of relevant information (e.g. CV, training records, membership records) for acceptance prior to commencement of construction works.

The Construction Environmental Advisor will be dedicated to delivering the requirements of the Inch Cape consents conditions and wider environmental matters. The CEA must be provided with adequate resources and tools including a Principal Contractor laptop and unrestricted access to all relevant controlled documentation and incident reporting systems. The CEA will have the authority to take all reasonable steps to ensure the environmental requirements are implemented and managed in relation to the Principal Contractor's works.

The Construction Environmental Advisor will, as a minimum:

 Lead on all environmental matters connected with the Contract, including compliance with environmental legislation and the Inch Cape consents and licences.



- Input and attendance to Principal Contractor and Contractors and Subcontractors HIRAs, SIMOPs, etc. for the Principal Contractor scope of work.
- Lead the environmental compliance monitoring for the Principal Contractor (and corresponding contractors' and subcontractors') works.
- Lead on environmental incident preparedness and response.
- Act as key interface between the Principal Contractor and Inch Cape ECoW and Environmental Lead.
- Ensure that Inch Cape environmental reporting processes are implemented and complied with by the Principal Contractor and corresponding Contractors and Subcontractors.
- Develop and implement the Principal Contractor's EMP and ensure the Contractors' and Subcontractors' EMPs (or equivalent project document) are aligned with it.
- Develop and deliver environmental training and inductions that provide an overview of the Inch Cape consents and licences requirements, cover project environmental management matters, and the reporting of environmental incidents and non-compliances to all relevant Principal Contractor, Contractors and Subcontractors personnel.
- Maintain training and induction records for the duration of the Inch Cape Project works and provide to Inch Cape copies of the records when requested.
- Review and provide environmental input and guidance to the Principal Contractor, Contractors and Subcontractors method statements, risk assessments, construction procedures and all relevant documentation (including bridging and interfacing documentation) prior to submission to Inch Cape (where relevant). Documentation will NOT be accepted otherwise.
- Undertake regular environmental audits and weekly inspections of the Principal Contractor,
   Contractors and Subcontractors vessels, sites at the different work stages to ensure compliance with legal and consent requirements.
- Ensure timely follow-up and close out of all non-compliances, actions and opportunities for improvement raised during Inch Cape audits and inspections.
- Ensure timely close out of incidents, near misses and non-compliances make sure that robust investigations are carried out, suitable root cause analysis conducted, and corrective and preventive actions are established and implemented.
- Provide advice and instruction to construction teams to deal rapidly and effectively with Inch
   Cape Consents non-conformities and environmental incidents.



 Analyse environmental incidents and non-compliances to identify trends and develop and implement specific training and awareness sessions that aim to prevent recurrence and minimise the environmental impact of the Contractor's activities.

# 2.3.16 Offshore Fisheries Liaison Officer (OFLO)

Report to: Principal Contractor

The Principal Contractor shall appoint Offshore Fisheries Liaison Officers (OFLOs) who will be present on main installation vessels (to be agreed with ICOL) whilst these are performing construction works in the Project Area. The Principal Contractor OFLOs position is a key personnel position included in contract.

The OFLOs shall be a suitably qualified and experienced person. A 'suitably qualified and experienced person' in relation to Contractor OFLOs means "a person who has sufficient experience in performing the duties of a fisheries liaison officer, whose judgement can be used to comment on or to resolve a technical problem with finality".

The OFLOs shall, as a minimum:

- Maintain regular contact with the Inch Cape FLO and other Inch Cape personnel, as required, concerning marine traffic and fishing vessel activity in the outer Firth of Forth.
- Communicate with the Vessel Master in respect of providing any relevant information to
  fishing vessels. When the vessel is not engaged in marine operations, the OFLO should work
  with the Vessel Master to avoid, where possible, fishing vessels actively engaged in fishing
  operations.
- Liaise with any fishermen who may have static gear deployed in or near the Project Area.
- Work with the Vessel Master to ensure adherence with relevant aspects of the FMMS.
- Record the detail of any fishing activity in and around the Project Area and of any incidents
  of infringement or movement or damage to static gear.
- Provide a daily update report by email to the Inch Cape FLO.
- If required, attend meetings with Inch Cape personnel including the Inch Cape FLO.



# 2.4 Routine Reporting, Notifications and Communications to Stakeholders

This section covers Inch Cape routine reporting, notification and communications to MD-LOT and relevant stakeholders as required by this CEMP and as set out in the consent's conditions.

Table 2.1 Outlines proposed routine reporting requirements.

Activity	Summary of Requirement	Responsibility	Frequency	Report to
ECoW Monthly Compliance Report	As snown in Appendix D, the report will detail FCoW Monthly N		MD-LOT /NatScot	
TAR (Transportation Audit Report)	The report will detail the nature and quantity of all substances and objects deposited and materials used in construction in that calendar month.	Environmental Lead / Consents Team	Monthly	MD-LOT
Inch Cape progress update	Determined by construction/compliance activity levels	Environmental Lead / Consents Team	Teleconference monthly and meetings quarterly	MD-LOT
Piling Strategy (PS) compliance report	Spreadsheet recording parameters that are used to monitor for compliance (see Inch Cape Piling Strategy)	ММО	Weekly (during piling)	ECoW
Weekly Notice of Operations (WNoO)	Publicly available update notice of marine operations targeted at other users of the sea	Marine Coordinator	Weekly	Sea users
Marine coordination notifications	Includes Notices to Mariners (NtM) and Notices to Airmen (NOTAM)	Marine Coordinator	As and when required depending on construction activity	Sea users

## 2.4.1 Contractor reporting

Appendix A contains a list of the different deliverables Contractors are required to provide throughout their participation on the works to allow ICOL conduct the different reporting and notifications to stakeholders as it is required by the consents.

## 2.5 Environmental Incidents and Non-Compliance reporting processes

The Principal Contractor is responsible for identifying and documenting all risks to the environment associated with their activities during the Inch Cape Project works and implementing all suitable controls and processes to ensure compliance with Inch Cape Consents and to prevent environmental incidents. All such measures, shall, as far as is reasonably practicable, be implemented in advance of works.



The Principal Contractor is also responsible for ensuring there are suitable response and reporting processes in place in advance of the works, that are to be employed in the event of any environmental incidents and non-compliances with the Inch Cape Consents or environmental legislation.

All Contractors (notwithstanding their duties under the CDM Regulations) shall report all environmental incidents within 60 min of occurrence. A written initial report with the basic details of the incident and actions taken must be submitted to the Marine Coordination Centre who will in turn notify the Inch Cape Package Manager, Senior Construction Manager and ICOL Environmental Lead and other required personnel. The final incident report will be submitted by the Contractor within 7 days. The period of the submission of the report can be extended upon agreement with ICOL. Please note that both incidents and non-compliance reports will need to have a root cause analysis section included within the report, otherwise it would not be accepted.

The ICOL Incident Reporting and Investigation Procedure (IC02-INT-HS-PPP-005-INC-PRO-001) provides the framework for incident reporting and investigation for the Inch Cape Project, the incident reporting process, minimum information to be provided and root cause analysis requirements. The specific reporting requirements for environmental incident is also described below.

The following shall be reported as **environmental incidents** in line with the specific details provided in the Appendixes:

Table 2.2 Outlines proposed routine reporting requirements.

Table 212 Camilles Proposed realistic reporting	
Incident Type	Location of Response Procedure
Pollution incident (oil or chemical spill to sea)	Section 2.5.1.1 of this document and Appendix E
Dropped Objects to sea	Section 2.5.1.2 of this document
Infringement of Archaeological Exclusion Zone	Section 2.5.1.3 of this document
Wildlife injury or fatality / Marine species disturbance	Section 2.5.1.4 of this document
Damage to static fishing gear & fisheries liaison issues	Section 2.5.1.5 of this document
Non-Compliance	Section 2.5.1.6 of this document

ICOL, Contractors and Stakeholders contacts that need to be included in the different incident and non-compliance notifications are included in Appendix B.

If a non-compliance is discovered offshore, the observer shall report it to the ICOL Client Representative onboard who will initiate the communication and reporting within ICOL, otherwise, non-compliances can be reported to the ICOL ECoW or Environmental Lead directly by the Contractor or ICOL personnel.



# 2.5.1 Incident & Non-Compliance Categorisation

The incident categorisation to be used by the Inch Cape Project is described in the **ICOL Incident Reporting and Investigation Procedure** (IC02-INT-HS-PPP-005-INC-PRO-001) whereby incidents are classified from Impact level 0 (very low/low potential impact) to Impact level 3 (high potential). The following table describes the environmental incident categories:

Table 2.3 Environmental Incident and Non-compliance definitions

Class	Impact Level	Definition	Actions
Environmental Near Miss	Level 0 (Very Low) (Low Potential Impact)	No corrective actions required	The incident will be reported by the Contractor as detailed in the following sections of this document.
<b>Minor</b> environmental incident / non- compliance event	Level 1 (Low) (Low Potential impact	A localised and short-term environmental event such as release, spillage or discharge to the environment that does not require external support and can be corrected by available personnel and/or materials. Certain types of incidents may require to be reported to the Regulator.  No harm to human health	<ul> <li>Contractor to implement incident response procedures.</li> <li>The incident / non-compliance will be reported by the Contractor as detailed in the following sections.</li> <li>ECoW to log event and detail on ECoW Monthly Compliance Report.</li> <li>Incident / non-compliance can be appropriately managed through implementation of appropriate Contractor EMP.</li> <li>Incident / non – compliance does not require regulatory authorities to be involved (except for spills and dropped objects to sea all of which must be reported to MD-LOT and MCA) but is reported to Environmental Lead for logging onto ICOL incident database system.</li> </ul>
Serious environmental incident / non- compliance event	Level 2 (Medium Potential Impact)	An event that is likely either by omission or breach of consents or environmental legislation to cause long term but localised harm to the environment or short term but widespread which remediation is within the capability of the Contractor.  Several complaints from individuals and short-term local media interest.  Minor or no harm to human health  No long-term ecosystem damage.	<ul> <li>Contractor to immediately implement incident response procedures.</li> <li>Incident/non-compliance requires immediate notification to ICOL per the Incident Reporting Procedure / CEMP.</li> <li>Incident to be reported to the relevant regulatory authorities as per specific incident procedures (see Appendix B for details)</li> <li>Following the incident/non-compliance Contractor to complete report and issue to ECoW.</li> <li>ECoW to log event, detail on ECoW Monthly Compliance Report and discuss with relevant regulatory authorities at regular progress meetings.</li> <li>Incident/non-compliance may require management practices in addition to the implementation of the appropriate EMP (either Inch Cape's or the Contractors'). Where this is the case management practices must be agreed with ICOL and regulatory authorities where appropriate prior to implementation</li> </ul>



Class	lmpact Level	Definition	Actions
Major environmental incident/non- compliance event	Level 3 (High Potential Impact)	An event that is likely either by omission or breach of consent or environmental legislation, to cause widespread and long-term damage to the environment. The remediation of the environmental damage is outside of the capability of the Contractor. May require assistance from government agencies and/or other external resources.  Many widespread or long-term complaints.  Substantial damage to human health  Short term national or long-term local media interest. Ecosystem damage lasting over a year.	<ul> <li>Immediate stoppage of works by Contractor.</li> <li>Contractor to immediately implement incident response procedures.</li> <li>Incident / non – compliance requires immediate notification to ICOL per the Incident Reporting Procedure/ CEMP.</li> <li>Incident / non-compliance requires immediate notification of the regulatory authorities by ICOL.</li> <li>Following the event, Contractor to complete report and issue to Environmental Lead, HSE Director and ECoW.</li> <li>ICOL and Contractor to hold incident / non-compliance meeting.</li> <li>Following the meeting, ECoW Non-Compliance Report/ incident report (as applicable) to be completed with input from the Contractor and ICOL and issued to the regulatory authorities. Meeting to be held between ICOL and the regulatory authorities to discuss the content of the Report.</li> <li>Incident / non-compliance likely to require management practices in addition to the implementation of the appropriate EMP (either ICOL'S or the Contractor's). Where this is the case management practices must be agreed with ICOL and regulatory authorities where appropriate prior to implementation.</li> <li>ECoW to log event and detail on ECoW Monthly Compliance Report.</li> </ul>

All offshore incidents, irrespective of classification, should be reported to Inch Cape Marine Coordination in the first instance.

The reporting processes described below should be implemented within the Contractor working practices and clearly described within the Contractor's EMPs and Vessel bridging documents. Please note that this is applicable to all Contractors notwithstanding their duties under the CDM Regulations.

In the event where it is required to report an incident to the Health and Safety Executive, MD-LOT will be notified by ICOL of such event within 24 hours of occurrence. If initially it is unclear whether an incident requires reporting to the Health and Safety Executive, ICOL would still notify MD-LOT within 24 hours.

#### 2.5.1.1 Spills to sea

Principal Contractors will produce a Contractor Marine Pollution Contingency Plan (MPCP) that is compliant with the Inch Cape MPCP (Appendix E).



In the event of a spill into the marine environment, the Contractor shall follow the specific MPCP for their scope of work which will bridge the Inch Cape MPCP requirements to the vessel/s Shipboard Oil Pollution Emergency Plan (SOPEP) and provide further guidance on actions for the different spill tiers.

The incident then must be reported to Inch Cape Marine Coordination by the Contractor within 60 min. The Contractor Vessel Master or Contractor Senior Offshore Person must also notify His Majesty's Coastguard (HM Coastguard) initially by telephone.

The Contractor Vessel Master or Contractor Senior Offshore Person is then obliged to complete and submit a pollution report (POLREP) using the Inch Cape POLREP template provided in Appendix B1. The Inch Cape MCC will be copied in the notification email.

The MCC will notify the Inch Cape Environmental Lead who will make contact with the Marine Directorate (MD-LOT) in relation to such pollution incidents.

For Tier 2 and 3 spill response incidents, the Principal Contractor (or ICOL, this is still to be determined) will be responsible for co-ordinating oil spill response using suitably qualified and experienced oil spill response subcontractors. The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not decided yet. This key information will be included in the next revision of this document.

The Contractor will be required to co-operate with Inch Cape on any queries and investigations in relation to marine pollution incidents.

<u>At landfall</u>, in addition to the above, if the event of a pollution incident, the incident shall also be reported by the Contractor to Forth Ports immediately on 01324 498584 or by VHF channel 71.

Pollution incidents at Landfall shall also be reported to SEPA.

## 2.5.1.2 Dropped Objects to sea

In the event of a dropped object to sea during the works (or any other accidental deposit anywhere in the marine environment of any substance or object, including by need of Force Majeure) the Contractor vessel/team must report it within 60 min to Inch Cape Marine Coordination as an environmental incident.

If the object is not retrieved at the time, then the Contractor is required to complete the latest version of the Marine Directorate Dropped Objects proforma (currently form **DROPOB1**, version 02, see Appendix B2) and return this to the Directorate (and all other contacts on the DROPOB1 form), copy Inch Cape MCC, and the organisations listed on the form, **no later than 12 hours** of the incident occurring (or as soon as possible where there is likely to be a significant hazard to other sea users). In circumstances where not all the information is available within 12 hours, the form should be



submitted and can be updated later.

Every reasonable measure should be taken to immediately retrieve dropped objects where this is considered reasonably practicable. If the dropped object is recovered immediately at the time of the incident or upon discovery of an object being dropped, there is no need to submit the proforma, however the incident will be still recorded by the Contractor, reported to ICOL and investigated as per the incident investigation requirements.

The Contractor is responsible for attempting to retrieve the dropped object, as soon as possible, at all times where safe to do so (a Marine Licence is not required for such recovery under the Marine Licensing (Exempted Activities) (Scottish Inshore and Offshore Regions) Amendment Order 2012).

Once actions to retrieve dropped object have been agreed with ICOL and MD-LOT, the Principal Contractor Construction Environmental Advisor shall complete the *Notice of Intention to Carry Out an Exempted Activity form* and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. The template can be found at: <a href="Notice+of+exempted+activity.pdf">Notice+of+exempted+activity.pdf</a> (www.gov.scot).

At landfall, should any plant or equipment be unable to be recovered from the water, it shall be reported by the Contractor to ICOL and FTNS immediately on 01324 498584 or by VHF channel 71.

### 2.5.1.3 Infringement of an Archaeological Exclusion Zone

Where an AEZ has been infringed, the Contractor is required to contact ICOL as per incident reporting requirements (notification within 60 min) The infringement should be notified by the Contractor to Inch Cape MCC who will in turn inform the Environmental Lead. The Environmental Lead will contact the Inch Cape Archaeological Consultant to implement the next course of action, which may include the Archaeological Consultant reporting to the relevant regulatory body, Historic Environment Scotland (HES). See **Appendix B3** for further information.

#### 2.5.1.4 Wildlife injury or fatality / Marine species disturbances

In the event that a wildlife incident occurs, such as injury to a marine mammal, or an observed marine mammal, fish or bird mortality, the Contractor will notify ICOL MCC within 60 min. The MCC will then notify the Inch Cape Environmental Lead and ICOL ECoW in the first instance. ICOL will then report to MD-LOT no later than 72 hours of the incident. Please see **Appendix B4** for further information on the specific reporting requirements.



### 2.5.1.5 Damage to static fishing gear and fisheries liaison issues

In the event of snagging or damaging fishing gear while transiting to and from site and / or on site these should be reported by the Contractor vessel to Inch Cape MCC within 60 min. The Contractor vessel will also notify the Contractor OFLO.

A written initial report with the basic details of the incident, photos, and actions taken must be submitted to the ICOL within 24 hours of the occurrence (See **Appendix B5** for further details).

Appendix B5 also contains several flow charts that provide the recommended actions to take by the Contractors vessel OFLOs and watch keepers in the event that they encounter fishing vessels, or fishing gear in the construction area.

## 2.5.1.6 Environmental Non- Compliance reporting.

A non-compliance is breach of the following:

- Section 36 Consent
- A Marine Licence
- ICOL Offshore Consent Plan (e.g., this CEMP, PS, VMP, CaP, etc.)
- Contractor EMP
- Contractor procedure
- Environmental and / or Maritime Legislation

Reporting of non-compliances to MD-LOT will be done by the ICOL ECoW using the template provided in Appendix C- Inch Cape ECoW Non-Compliance Report Template.

If a non-compliance is discovered offshore, the observer shall report it to the ICOL Client Representative onboard who will initiate the communication and reporting within ICOL, otherwise, non-compliances can be reported to the ICOL ECoW or Environmental Lead directly by the Contractor or ICOL personnel. The ICOL ECoW and the Environmental Lead will agree and confirm if it is in fact a non-compliance with any of the above.

Information on the process and a flowchart to determine if the works can continue or not after the discovery of a non-compliance are described in Appendix B6.

Once a non-compliance has been identified, works continued or not, and the text of the non-compliance drafted and agreed, the ECoW will notify MD-LOT and corresponding stakeholders via email.



ICOL Environmental Lead will share the ECoW non-compliance notification with the Contractor and, considering the impact level of the non-compliance (Table 2), the ICOL Environmental Lead and Package personnel as required, will liaise with the Contractor to ensure that there is a root cause analysis conducted to establish the causes of the non-compliance and that suitable preventive and corrective actions are agreed in advance with the ICOL ECoW, Environmental Lead and MD-LOT as required. The agreed measures shall be put in place by the Contractor and ICOL to address the non-compliance as soon as reasonably practicable.

The Contractor shall produce a final non-compliance report which will contain as a minimum a root cause analysis, preventive, corrective actions and lessons learned identified including evidence for the close out of the actions.

Contractors should aim to address non-compliances as soon as reasonably practicable. Progress updates will be provided by the Principal Contractor Construction Environmental Advisor during the Environmental compliance meetings between the Contractor ICOL and the ICOL ECoW.

The ICOL ECoW will use the information provided by the Contractor to complete the ECoW Non-Compliance Close Out Report and issue it for review and approval to the ICOL Environmental Lead and ICOL Package Manager prior to the final submission to MD-LOT.

### 2.6 Environmental Risk Assessment

Contractors shall ensure that environmental risks are taken into consideration in the risk assessment process for each element of the operations from mobilisation to demobilisation, and that suitable controls are put in place to mitigate the risk of the identified hazards impacting the environment.

The Principal Contractor's HIRA process shall ensure that the necessary controls and mitigation measures have been identified and the level of risk reviewed to ensure the activities are encompassed in the principle of ALARP. This also applies to the activities conducted by Contractors and Subcontractors.

Risk assessments where the specific environmental aspects of the project have not been fully or reasonably considered throughout the different work activities will not be accepted by Inch Cape.

# 2.7 Environmental Competency Training and Awareness

Principal Contractors will provide suitable training to all their personnel, Contractor personnel and Subcontractor personnel covering the content of their EMPs and all applicable Inch Cape Consents (Consent Plans and related procedures). This training shall be specifically tailored to the different Contractors' teams and work scopes and contain the relevant information, so there is clarify on the



reporting requirements for the project. Lessons learned during the project shall be also included as appropriate.

The training shall be refreshed every 12 months or following any material change to works scopes, whichever is soonest. Principal Contractors should monitor the training effectiveness and provide evidence to ICOL.

The Contractors will maintain training records and provide copies of the records to ICOL, as required during readiness review sessions or audits / inspections.

In addition, each Contractor will ensure all personnel are made aware of the Contractor's compliance monitoring registers, to ensure evidence is provided of compliance to all ICOL Consents.

In collaboration with ICOL and the ICOL Offshore ECoW, environmental awareness campaigns on specific topics (e.g. chemical use, spills to sea, SF6, dropped objects, etc.) and Toolbox talks on environmental matters shall be scheduled by Contractors to be delivered regularly on their work sites during their participation on the works.

### 2.8 Lessons Learned

Contractors shall conduct lessons learned sessions as required; either as part of or, in addition to an audit, inspection, or investigation, the following instances would trigger a lessons learned session:

- Following a particular Development milestone or phase.
- Following a Contractor or Subcontractor joining the project.
- Following a particular operation.
- Following an audit or inspection.
- Following an incident investigation.

ICOL will be in attendance as required.



# 3 Management of Environmental Aspects and Compliance Obligations

## 3.1 Overview

The requirement to construct and operate the Development in accordance with the environmental management and mitigation measures identified in the Application and the Environmental Impact Assessment Report (EIAR¹) arise from specific requirements in the consents. This section of the CEMP (and the other referenced Consent Plans in Table 1.3) is set out in accordance with the commitments and mitigation measures made in the EIAR. This section splits out the key environmental aspects that relate to the construction of the Inch Cape Project and then details the overarching approach to management of related environmental impacts.

Each Principal Contractor is required to produce a project environmental aspects and impact register to demonstrate that the works managed by the Principal Contractor have identified and controlled environmental risks associated with their scope of works.

Similarly, each Principal Contractor is required to produce a project environmental compliance obligations register, to demonstrate relevant legal and other requirements (including the Inch Cape Consents and Consent Plans) have been identified and are being managed effectively as part of their work scope.

# 3.2 Marine Species

Inch Cape must ensure that all reasonable, appropriate and practicable steps are taken at all times to avoid or minimise damage to the Scottish marine area caused as a result of the undertaking of the Licenced Activities

The environmental surveys completed for the Environmental Statement (ES) and EIAR identified environmental sensitivities (seabirds, marine mammals, benthic habitats, etc.) and the appropriate management and mitigation commitments to be implemented as part of the consent applications and reflected in the consent's conditions.

The marine mammals that are usually found / have been sighted in the area or close to the development area are: Harbour porpoise, bottlenose dolphin, minke whale, white sided dolphin, white-

<sup>&</sup>lt;sup>1</sup> In 2013 an Environmental Statement (ES) was produced for the original design of the Inch Cape Offshore Wind Farm. This was subsequently updated in 2018 with the production of an updated EIAR to enable the use of progressions in technology following the original consent, through a reduction on turbine numbers (fewer turbines with larger generating capacity), and reduction in associated cabling (inter-array and export cables) in order to maximise efficiencies whilst minimising environmental impacts. The EIAR updated the 2013 ES and where impacts were predicted to be less than those already assessed, a new assessment was not undertaken as the conclusions drawn in the original 2013 ES remained valid.



beaked dolphin, common dolphin, Risso's dolphin, killer whale, long-finned pilot whale, fin whale, humpback and sei whale.

There are a number of seabird species likely to be present in the Inch Cape Project Area due to the vicinity of several SPAs designated for seabirds amongst other features. According to Inch Cape studies these include gannet, guillemot, kittiwake, puffin, razorbill, fulmar, little oak and artic tern.

Monitoring plans are detailed in the Project Environmental Monitoring Programme (PEMP) (ICO2-INT-EC-OFC-017-INC-PLA-001), which presents measures to monitor any environmental effects of the Inch Cape Project, including pre-construction, during construction and post-construction surveys.

The PEMP is a live document and will be amended as the project progresses and further monitoring data becomes available. The results of those surveys will be considered in terms of the environmental sensitivities identified and where necessary consideration will be given to the need for additional environmental mitigation to be developed in discussion with MD-LOT and FTRAG.

ICOL will submit written reports and associated raw and processed data of such monitoring or data collection to the Scottish Ministers at timescales to be determined by them.

In the event that a wildlife incident occurs, such as injury to a marine mammal, or an observed fish or bird mortality, the Contractor will notify Inch Cape MCC in the first instance as detailed in section 2.5.

The requirement to manage vessel operations to take account of potential disturbance to marine mammals and birds is set out in the Offshore Piling Strategy (PS) (ICO2-INT-EC-OFC-005-INC-STR-001) and Vessel Management Plan and Navigation Safety Plan (VMNSP) (ICO2-INT-EC-OFC-008-INC-PLA-001). All vessels will be required to adhere to the provisions of the **Scottish Marine Wildlife Watching Code** (SMWWC) (SNH, 20172) to ensure best practice when operating around marine mammals.

If required, the Principal Contractor will apply for a European Protected Species Licence (EPS) or as agreed otherwise with ICOL.

# 3.2.1 Noise Registry

Underwater noise from the construction activities can affect marine species in a variety of ways. ICOL will complete and submit a proposed activity form to the Joint Nature Conservation Committee (JNCC) in the online UK Marine Noise Registry (MNR) for all aspects of the works that will produce loud, low to medium frequency (10 Hz-10 kHz) impulsive noise no later than seven days prior to

<sup>&</sup>lt;sup>2</sup> SNH (2017a). The Scottish Marine Wildlife Watching Code (SMWWC) - Part 1. SNH Guidance. Available from: <a href="https://www.nature.scot/scottish-marine-wildlife-watching-code-smwwc-part-1">https://www.nature.scot/scottish-marine-wildlife-watching-code-smwwc-part-1</a>. SNH (2017b). A Guide to Best Practice for Watching Marine Wildlife (SMWWC) Part 2. SNH Guidance. Available from: <a href="https://www.nature.scot/guide-best-practice-watching-marine-wildlife-smwwc-part-2">https://www.nature.scot/guide-best-practice-watching-marine-wildlife-smwwc-part-2</a>).



Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, ICOL will complete and submit a new proposed activity form no later than seven days prior to the Commencement of the Works.

ICOL will complete and submit a close-out report for all aspects of the Works that produced loud, low to medium frequency (10 Hz-10 kHz) impulsive noise in the online Noise Registry no later than 12 weeks after the Completion of the (noisy) works.

## 3.2.2 Monitoring of Marine Mammals

Inch Cape will appoint an MMO, who must as a minimum maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy activities. These records will be provided to the ICOL ECoW on a regular basis (to be agreed with the ECoW). The ICOL ECoW will provide these records to the Licensing Authority withing 6 months of the commencement of the works. Contractors and Subcontractors shall accommodate an MMO on their vessels as required.

# 3.3 Marine Archaeology

Contractors are not permitted to conduct any activities that may disturb the seabed within Inch Cape project Archaeological Exclusion Zones (AEZs). This must be communicated by the Principal Contractor to all relevant Contractor and Subcontractor personnel. ICOL will provide the Principal Contractors with AEZ shapefiles and it is the expectation that these are plotted on the navigation systems of the vessels working in the project.

AEZs are required for all known sites of high, or medium potential where the location of the archaeological receptor is known, or where the receptor has been at one time identified by geophysical/diver/ROV surveys. AEZs are formed by establishing a buffer around the known extents of wreck sites, or around geophysical anomalies for which the available evidence suggests that there could be archaeological material present on the seabed. AEZs are site-specific depending on the extent of the site or wreckage and are based on their archaeological potential.

Where an AEZ has been infringed, the Contractor is required to contact ICOL as per incident reporting requirements detailed earlier in section 2.5 of this document.

The procedures to be followed on **discovering any marine archaeology during construction**, of the Inch Cape Project, is set out in the **Protocol for Archaeological Discoveries (PAD)** (IC02-INT-EC-OFC-021-INC-PLA-001). A summary of the actions / notifications to conduct is also included in **Appendix B3**.



# 3.4 Unexploded Ordnance (UXO)

An unexploded ordnance (UXO) survey and clearance programme will be completed prior to the commencement of construction.

The risk of discovering previously unidentified UXOs will be reduced to as low as reasonably possible (ALARP). However, in the event that a UXO is discovered during the construction works, the Contractor will inform the Principal Contractor immediately who will in turn contact Inch Cape MCC.

In the unlikely event of needing to detonate a UXO during construction, MD-LOT will be consulted (a separate Marine Licence and EPS Licence will be sought, as required by ICOL) and the Joint Nature Conservation Committee (JNCC) guidelines for mitigating impact upon marine mammals will be followed.

ICOL will consult with, and engage, a recognised, competent UXO disposal company for the safe handling and disposal of any UXO.

### 3.5 Other Marine Users

ICOL's approaches to manage and mitigate potential impacts on other marine users are provided in the following Consent Plans:

- Vessel Management and Navigational Safety Plan (VMNSP)
- Construction Method Statement (CMS)
- Lighting and Marking Plan (LMP)
- Fisheries Mitigation and Management Strategy (FMMS)

Specifically, measures covered by these plans include:

- Adoption of safety zones.
- Appropriate notification of construction activities to other marine users.
- Appropriate charting of the OWF and OfTI.
- Appropriate marking and lighting of the Wind Farm and OfTI.
- A clear process of marine coordination of all vessels and vessel activity.
- Appropriate marking and lighting of vessels.
- Vessel transit planning, commercial fisheries relations and management of fisheries



interactions.

In line with other major construction projects, ICOL provide a 24-hour customer service helpline for members of the public who may have queries about the offshore or onshore elements of this construction work. The helpline number is 0800 2545091.

### 3.6 Marine Pollution Prevention and Contingency Planning

A Marine Pollution Contingency Plan (MPCP), ICOL MPCP, has been prepared in response to the requirements of the Consents as described in section 1.3 of this document, and it is included as Appendix E of this document.

The worst-case pollution event associated with the Inch Cape Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Volumes of chemicals utilised in the project will be relatively small. Chemical spills will be classified according to the characteristics of the chemical and the behaviour exhibited by the chemical when released into the marine environment (i.e. whether the chemical evaporates, floats on the surface of the water, dissolves in the water, or sinks to the seabed).

ICOL Marine Pollution Contingency Plan requires that Principal Contractors produce their own MPCP that is complaint with ICOL's in advance of any works.

In the event of a pollution incident, construction personnel should refer immediately to their MPCP for details on appropriate response procedures.

Detailed plans for the prevention of pollution incidents on-site, and management of any incidents that may occur shall be presented in the MPCP.

For spill response, Principal Contractors (or ICOL, this is still to be determined) will be responsible for co-ordinating Tier 2 and 3 oil spill response incidents using **suitably qualified and experienced oil spill response subcontractors.** The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not been decided yet. This key information will be included in the next revision of this document.

It is recommended that Contractors include these arrangements within their vessel specific bridging documents.

#### 3.7 Emergency Response



Inch Cape Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002) references industry good practice outlined in the G+ Integrated Offshore Emergency Response (IOER-R) good practice guidelines for offshore renewable energy developments. The plan describes how the project shall respond to a serious incident or other event that has already, or has the potential, to result in a major threat to life, the environment, infrastructure, or reputation of Inch Cape Offshore Limited. This includes anyone associated with ICOL including employees, contractors, sub-contractors, visitors, or members of the public that may be affected by the adverse situation.

Its intention and priority is to ensure that people are kept safe whilst responding to an emergency situation and that the environment is protected.

This Plan specifies the minimum requirements expected of any ERP, that is to be produced by appointed Principal Contractors, Contractors and Subcontractors, and provide guidance on the interaction and communications between persons at the scene of the incident.

The Inch Cape Emergency Response Co-operation Plan (ERCoP) (IC02-INT-EC-OFC-011-INC-PLA-001) is a bridging document between Inch Cape and the Maritime Coastguard Agency (MCA) and it is intended to ensure cooperation with the MCA in the event of an emergency by detailing the design of the Inch Cape Project, describing the actions to be taken in an emergency during both construction and operation of the Inch Cape Project, and the resources available to support those actions, and providing emergency contact details.

#### 3.8 Chemical usage

The Inch Cape consents place several requirements and obligations that need to be complied with. The below provides guidance, and the responsibilities for ICOL, the ECoW and Contractors to comply with this condition.

Inch Cape shall seek **prior written approval** from the Licensing Authority for any <u>chemicals in an</u> open system which are to be utilised in the construction, operation and maintenance of the Works.

MD-LOT considers an open system to be anything that through its normal operation comes into contact with the marine environment (examples of chemicals used in open systems are: cementing chemicals, dyes and additives, biocides and corrosion inhibitors (monopile installation) chemicals discharged into the sea via the grout wash water, hydraulic fluids from actuating subsea valves, guano cleaning products directly washed out into the sea, greases/dope directly applied onto the surface of equipment, cables or materials that goes into the sea, etc.).

Requests for approval to use chemicals in open systems must be submitted by ICOL/ECoW in writing to MD-LOT no later than one month prior to its intended use or such other period as agreed by MD-LOT.



If the proposed chemical is on the OCNS list, the approval request must include:

- the chemical name
- the volume or quantity to be used,
- the OCNS list grouping or rank and,
- the proposed frequency of use.

If the proposed chemical is  $\underline{not}$  on the OCNS list, the approval request must include:

- details of chemical to be used, including safety data sheet,
- depth and current at the Site,
- quantities or volumes and,
- the proposed frequency of use.

ICOL and Contractors must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority.

The deliberate discharge of surplus or waste chemicals is not allowed, and the chemicals should be returned to shore for disposal.

Contractors shall monitor chemical use offshore and advice ICOL of any updates of their usage (and chemical list) so the ECoW can conduct the corresponding requests for approval or notification to MD-LOT that may be required as the works progresses, and new Contractors arrive.

Additionally, ICOL must **notify** the Licensing Authority the types of <u>chemicals</u> to be used <u>in a closed</u> containment system **prior to use**.

MD-LOT considers a closed system to be anything that through its normal operation does not come into contact with the marine environment. With the exception of chemicals used on vessels and ROVs, every other chemical must be notified. This is a non-exhaustive list of the types of chemicals that fall under this category:

- Chemicals to be used within the internal systems of sub-sea tools deployed into the water (e.g. in trenching vehicles, subsea pumps, cutting tools, pile grippers, etc.).
- Chemicals used within the internal systems of tools used over the water (e.g. blade lifting tool, nacelle/tower lifting tool, piling hammers, etc.).
- Chemicals contained in fixed equipment inside the offshore structures (OSP/FOU/TP/WTG) (swich gear, cooling systems, etc.).



- Chemicals contained inside construction equipment that is used outdoors on the decks of the offshore structures (HPUs, generators, etc.)
- Completion chemicals (paints, primers, thinners, corrosion removers, etc.).

The following <u>chemicals are considered exempted and don't need to be reported</u> and therefore don't need to be included by the Contractors in their chemical lists <u>as in a closed containment system</u>:

- All vessel chemicals (including those used in walk to work systems and ROVs).
- Products used within domestic accommodation areas (e.g. cleaning products used on OSP, TPs).
- Fuels and lubricants.
- Hydraulic fluids used in cranes and other permanent machinery (OSP, WTGs, TPs).
- Chemicals used to prevent machinery or installation corrosion.
- Products classified as coatings that are used to protect internal and external surfaces of coiled tubing from corrosion and erosion damage.
- Products classified as "locking" compounds that are used as a material to bond casing threads or fittings.
- Welding gases
- Firefighting chemicals.

The deliberate discharge of surplus or waste chemicals is not allowed, and the chemicals should be returned to shore for disposal.

The ECoW will issue the notification to MD-LOT of chemicals used in closed system within 1 week prior to use offshore.

ICOL will provide the Principal Contractors with a template (Principal Contractor Chemical List) to populate all the required information described above for the chemicals to be used in an open system, and the types of chemicals (trade name as per SDS) to be used in a closed contained systems.

Contractors should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported as "spills to sea" as described in section 2.5 of this document.



### 3.9 Fuel Oil and Vessel Lubricating Fluids

Fuel oil is not considered 'a chemical' requiring to be noted on each Principal Contractor's Chemical List as this is under separate regulation. The main types of fuel oil to be used by the construction/commissioning vessels will be Marine Gas Oil (MGO) and Intermediate Fuel Oil (IFO).

Vessel bunkering is to be conducted at port only whilst engaged in the Inch Cape Project. **Offshore fuel bunkering will not be permitted unless otherwise agreed in advance by ICOL personnel including the ICOL Environmental Lead, ECoW and Lead Marine Co-ordination.** Offshore fuel bunkering if approved will be considered a contingency measure only.

Where offshore fuel bunkering has been agreed in advance with ICOL, Ship to Ship Transfer regulations exemption is required by the Principal Contractor (or their Contractor or Subcontractor) with MCA. This is typically a request for an exemption to the MCA via letter (email).

Information required by the MCA from the Principal Contractor (or their Contractor or Subcontractor) to consider the exemption will include a bunker plan and procedure arrangements. It will also include additional precautions required by MCA such as fuel bunker hose certification and regular inspections, bunker station emergency stop, trained SOPEP team, offshore response contractors providing support during bunkering and details of the fuel oil provider(s) to be used and a summary of their precautions, bunkering procedures and experience/certifications.

Exact arrangements must be confirmed by the Contractor with MCA and approval is required by MCA sufficiently in advance of offshore fuel bunkering taking place. This approval must be confirmed to ICOL prior to offshore fuel bunkering taking place. On-going notification to MCA is required prior to each offshore fuel bunkering taking place and the Inch Cape Environmental Lead, ICOL Offshore ECoW and Marine Co-ordination Manager must be copied into communications with the MCA.

It is an expectation from ICOL that a spill to the sea drill using the Principal Contractor's MPCP is conducted prior to each offshore bunkering operation.

Fuel oil management measures required by each Contractor (and/or their subcontractors) must be in compliance with MARPOL Annex I (including fuel oil management, machinery space discharges and record keeping) Inch Cape MPCP response measures and MARPOL Annex VI (including fuel efficiency and air pollution control measures) and also with corresponding UK merchant shipping regulations. The percentage fuel sulphur content to be used on vessels by Contractor (and/or their subcontractors) must be compliant with up-to-date North Sea location specific percentage sulphur requirements required by law.



# 3.10 Bunding and Storage

In addition to the above, and to ensure pollution prevention is undertaken, all Contractors and Subcontractors shall ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works, plant and equipment into the marine environment. Requirements for bunding and storage shall be written into the Method Statements and Risk Assessments, and the Contractors' EMPs.

Where spillage does take place, Contractors are required to follow specific spill prevention and response measures detailed within their Marine Pollution Contingency Plan and report it to the authorities and ICOL as detailed within the ICOL MPCP (or section 2.5 of this document).

### 3.11 Marine Invasive Non-Native Species

To prevent the introduction of invasive non-native species (INNS), Inch Cape will:

- Require that all Contractors adopt the relevant and most current legislative requirements and guidelines at the time of carrying out their works.
- Require Contractors produce EMPs setting out in detail procedures to prevent the introduction of INNS.

The most current legislation and guidance relevant to the control of INNS are shown on the table below

Table 3.1 Legislation and guidelines relating to measures to prevent the introduction of INNS

Legislation / Guidelines	Summary	Relevant Requirement
International Convention	The objective is to prevent, minimise and ultimately eliminate the transfer of harmful aquatic organisms and pathogens though control and management of ships' ballast water and	Ballast Water Management Plan
for the Control and Management of Ships' Ballast Water and	sediments. Under this Convention, all ships of 400 gross tons (gt) and above will be required to have on board an approved Ballast Water Management Plan and a Ballast Water Record	Ballast Water Record Book
Sediments (BWM) – adopted 2004	Book, and to be surveyed and issued with an International Ballast Water Management Certificate.	International Ballast Water Management Certificate
The Merchant Shipping (Anti-Fouling Systems) Regulations 2009	Prohibits the use of harmful organotin compounds in antifouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems and provides the UK legal framework for enforcement of Regulation (EC) 782/2003 on the prohibition of organotin compounds on ships.	Anti-Fouling System Certificate / Declaration
Resolution Mepc.207(62) 2011 Guidelines For The Control And Management Of Ships	The Guidelines are intended to provide useful recommendations on general measures to minimize the risks associated with biofouling for all types of ships.	General guidance on minimising biofouling risks (recommends to implement a Biofouling



Legislation / Guidelines Summary Relevant Requirement

Biofouling To Minimise
The Transfer Of Invasive
Aquatic Species

Management Plan and
Biofouling Record Book)

Specific measures that ICOL will require are adopted by all Contractors (and their Subcontractors) will include, but not be limited to:

- A requirement for all vessels of 400 gross tonnage (gt) and above to be in possession of a current international Anti-fouling System (AFS) Certificate and that it is made available for review.
- A requirement for all vessels of 24m or more in length (but less than 400gt) to carry a
  Declaration on AFS signed by the owner or authorised agent accompanied by appropriate
  documentation.
- A requirement for the details of all ship hull inspections and biofouling management measures be documented by the Contractors (and their Subcontractors) and, where applicable, recorded in the Planned Maintenance System.
- A requirement for all submersible/immiscible equipment such as ROVs and any other subsea
  equipment to be subject to pre-use and post-use checks including checks for the presence
  of marine growth. All equipment will be required to be free of marine growth prior to
  mobilisation to the Inch Cape Project.
- A requirement for all vessels to be compliant (where applicable) with the International Convention for the Control and Management of Ships' Ballast Water and Sediments 2004.
- A requirement, where relevant, for the management of ballast water in accordance with an
  approved Ballast Water and Sediments Management Plan and records of such management
  in a Ballast Water Record Book in accordance with the provisions of the Convention.
- A requirement to meet IMO timescales for BWM compliant ballast water treatment systems to be installed on relevant vessels (in line with vessel types and their International Oil Pollution Prevention re-certification dates).

In addition, Contractors (and their Subcontractors) are required to consider the recommendations of Resolution MEPC.207(62) 2011 guidelines for the control and management of ship's biofouling to minimise the transfer of invasive aquatic species including, for example, the implementation of a Biofouling Management Plan outlining the biofouling management measures to be undertaken on vessels.



Further information can be found on Check Dry Clean on the GB Non-Native Species Secretariat (NNSS) website, available at: <a href="http://www.nonnativespecies.org/checkcleandry/">http://www.nonnativespecies.org/checkcleandry/</a>

### 3.12 Drill Cuttings

Seabed drilling may be required as an emergency measure to make foundation installation safe if pile driving cannot be completed as planned, however, as required, if oil-based drilling muds are utilised they will be contained within a zero-discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the site need not be removed from the seabed.

#### 3.13 Environmental Protection

ICOL must ensure that, where practicable, all substances and objects deposited during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.

ICOL must ensure that all reasonable, appropriate and practicable steps are taken at all times to minimise damage to the Scottish marine area caused as a result of the undertaking of the of the Works. ICOL and Contractors must ensure that all personnel adhere to the SMWWC where appropriate during all construction activities undertaken for the Works.

The Cable Plan - Export Cable (CaP - EC) (IC02-INT-EC-OFC-012-INC-PLA-002) and Cable Plan - Inter array Cables (CaP - IAC) (IC02-INT-EC-OFC-012-INC-PLA-001) contain information with regards the different surveys conducted (including benthic and Annex 1 Habitats) and how the findings have been considered for the design of the routes and the effects of cable installation during construction and further operation of the Development.

<u>At landfall</u> the Contractor (and Subcontractors) shall ensure that appropriate steps are taken to minimise damage to the beach and foreshore by the works. On completion of the works, the Contractor shall ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.

# 3.14 Waste Management

All Contractors shall ensure that any debris or waste material placed on the seabed during the construction of the Works is removed from the Site, unless agreed otherwise by MD-LOT, as soon as is reasonably practicable, for disposal at a location approved by SEPA or such other relevant authority if disposal is to take place out with Scotland.



ICOL require that Principal Contractors, for the construction of the Inch Cape Project, shall produce a Waste Management Plan, that details all waste management procedures for their activities, details of expected waste arisings and proposed procedures for waste management. This is in addition to the Garbage Management Plan of the vessels which usually don't not cover the "project "operational waste.

In addition, the following will be included in the Waste Management Plan, as the Contractors' and Subcontractors' responsibilities:

- Meet all relevant legislative requirements and obtain whatever additional permits and licences are necessary in relation to waste management.
- Handle waste materials and refuse so that it causes the least practicable damage and disturbance.
- Place all waste in suitably labelled and secure containers.
- Reduce waste to landfill through waste elimination, reduction and recycling where feasible.
   (Details of the types and quantities of recyclable materials such as TP, tower, blade and nacelle covers, etc. returned to the factory for reuse/recycle should be captured).
- Contain, recover and bring all relevant waste back to shore and dispose of such waste in accordance with the legal waste management framework.
- Transfer the waste or refuse only conducted by licenced waste carriers and waste treatment and waste disposal is conducted by licenced and permitted waste management companies, in compliance with applicable waste legislation.
- Retain all required waste management paperwork such as transfer notes and consignment notes for review.
- Be compliant with and use the current version of Transfrontier Shipment of Waste Regulations where ICOL waste is being exported by Contractors (or their subcontractors).
   Export of waste will also be in line with the principles of the Basel Convention of 1989, which was agreed internationally to avoid hazardous waste being unfairly exported to developing countries.
- All qualifying vessels must demonstrate compliance with MARPOL Annex V (and equivalent current UK merchant shipping regulations) for waste management generally and MARPOL Annex IV (and equivalent current UK merchant shipping regulations) for sewage waste specifically.
- Incineration offshore is not permitted. Contractors wishing to incinerate non-hazardous waste



produced offshore will have to apply for an exemption under The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011.

Incineration in port is not permitted.

The Principal Contractor will provide the Waste Management Plan to ICOL for acceptance prior to the commencement of works. The Contractor Waste Management Plan may form part of the Contractor EMP.

#### 3.15 Commercial Fisheries

As described in section 2.3.11, ICOL has appointed a Fisheries Liaison Officer (FLO) to:

- Establish and maintain effective communications between Inch Cape, any Contractors and Subcontractors, fishers and other users of the sea concerning the overall project and any amendments to the Construction Method Statements and site environmental procedures.
- Provide information relating to the safe operation of fishing activity on the Project site.
- Ensure that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.

Additionally, **Principal Contractors will appoint Offshore Fisheries Liaison Officers (OFLOs)** on the main installation / construction support vessels (as required to be agreed with ICOL) to act as a point of communications with the fishing interests at sea and ICOL's FLO whilst these are performing construction works in the Project Area.

The Inch Cape Fisheries Management and Mitigation Strategy (FMMS) (ICOL-INT-EC-OFC-018-INC-STR-002) addresses the specific requirements of the Consent conditions and will be implemented during construction with a view to facilitating co-existence between the Inch Cape Project and commercial fishing and to mitigating impacts on relevant fishing interests.

#### 3.16 Seabed Deposits

Part 2 of the Marine Licences detail the quantities of substances and objects and the construction materials that Inch Cape is authorised to deposit on the seabed in connection with the Works. Additionally, the Marine Licence require that, where practicable, all substances and objects deposited during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it



supports or human health.

Principal Contractors, prior to the commencement of the work will provide ICOL Consents Team with the details of any substances and objects and calculations of the estimated construction material to be used on their scope of work.

<u>At landfall</u>, the Contractor must remove the materials from below the level of Mean High Water Springs, or make such alterations as advised by the Licensing Authority, within one month of notice being given by the Licensing Authority at any time it is considered necessary or advisable for the safety of navigation, and not replaced without further approval by the Licensing Authority. Equally, Forth Ports shall have the right to require modification, addition or alteration to the works, if in their opinion such action is necessary.

The landfall Contractor shall ensure that prior to the finalisation of the works, all temporary structures are removed and placed above Mean High Water Springs.

Upon completion of the works at landfall, Inch Cape will submit a written report regarding the materials used during the works to the Licensing Authority. The written report must be submitted on completion of the works and on the forms provided by the Licensing Authority no later than 31 October 2029.

### 3.16.1 Transportation Audit Reports (TAR)

The TAR is a reporting requirement under the Marine Licence(s) condition that keeps track of what has been licenced to be deposited on the seabed. Anything outside of that is an unintentional dropped object that is reported separately as described in section 2.5.

The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of the licences) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.

Each Principal Contractor is required to collect all the required information for the TAR and will issue these to the ICOL Offshore Consents Team / Environmental Lead on a monthly basis.

The ICOL Consents Team will compile all the information for the period and will then submit the TAR to MD-LOT within 14 days from the end of each month. The ECoW will sign it off prior to submission.

The TAR will include information on the nature and quantity of all substances and objects deposited and materials used in construction in that calendar month.

The TAR template will be provided by ICOL prior to the commencement of construction.



### 3.16.2 Dropped Objects

The requirement to record, notify and potentially recover objects lost or accidentally deposited on the seabed during construction works arises from specific requirements in the consents. Section 2.5 describes the process to report such incidents, including procedures for communicating deposits made under circumstances of Force Majeure.

Every reasonable measure should be taken to immediately retrieve dropped objects where this is considered reasonably practicable (a Marine Licence is not required for such recovery under the Marine Licensing (Exempted Activities) (Scottish Inshore and Offshore Regions) Amendment Order 2012). MD-LOT may deem it necessary to carry out a side scan survey to locate the substances or objects and may require the deposits to be removed by ICOL/ Contractor. The results of any such surveys must be analysed as soon as reasonably practicable and the proposed remedial action and proposals for recovery of the Dropped Object if appropriate must be provided to MD-LOT.

Dropped objects can present a significant hazard to other sea users and the marine environment. Notification of dropped objects enables MD-LOT, in consultation with other relevant stakeholders, to decide what action should be taken and to allow notification of other sea users of any navigational hazards.

Once actions to retrieve dropped object have been determined, the Principal Contractor Construction Environmental Advisor shall complete the *Notice of Intention to Carry Out an Exempted Activity form* and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. This form can be obtained from Notice+of+exempted+activity.pdf (www.gov.scot).

Each Contractor should have its own process for ensuring equipment and materials are adequately stored and controlled and that personnel are adequately trained and briefed on avoiding dropped objects or accidental deposits.

#### 3.16.3 Dropped Object Prevention

Consideration should be given to minimising wherever reasonably practicable the potential for objects to be dropped or otherwise accidentally deposited. Each Contractor (and their Subcontractors) should have its own process for ensuring equipment and materials are adequately stored and controlled and personnel are adequately trained and briefed on avoiding dropped objects or accidental deposits. These processes should be highlighted within the Contractor's EMP.

It is ICOL expectation that a dropped object prevention and reporting awareness campaign is conducted by the Contractors during the first six months of the commencement of the works.



### 3.17 Fluorinated greenhouse gases

Contractors using equipment which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases (F-Gas Regulation) or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases.

In order to comply with the Marine Licence(s) Condition, ICOL will require all Contractors to take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases. Where leakage of fluorinated greenhouse gases is detected, Contractors shall ensure that the equipment is repaired without undue delay.

All equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO2 equivalent or more and not contained in foams will be checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks will be kept in accordance with Article 6 of the F-Gas Regulation. These records will be submitted to MD-LOT annually and immediately in the event of discovery of leakage.

Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, this will be undertaken by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, MD-LOT will be informed of the date of discovery, date of repair and date of inspection.

Please use this link: <u>Calculate the carbon dioxide equivalent quantity of an F gas - GOV.UK</u> (www.gov.uk).



#### 3.18 Other

Where Contractors (and or/their subcontractors) have radioactive sources e.g. for measurement or for other reasons to be used offshore or at port, this must be declared to ICOL in advance of use. The relevant Scottish Environment Protection Agency (SEPA) registration or licence (depending on type) will be required to be provided by each Contractor to ICOL for each source and details of control measures will be reviewed by ICOL prior to approval.

If dredging is required as a contingency for any of the construction work a dredging licence application will be made by the Principal Contractor.

# 3.19 Compliance with the Environmental Impact Assessment Report (EIAR)

The requirement to construct and operate the Development in accordance with the environmental management and mitigation measures identified in the Application arise from specific requirements in the consents.

In 2013 an ES was produced for the original design of the Inch Cape Offshore Wind Farm. This was subsequently updated in 2018 with the production of an updated EIAR to enable the use of progressions in technology following the original consent, through a reduction on turbine numbers (fewer turbines with larger generating capacity), and reduction in associated cabling (inter-array and export cables) in order to maximise efficiencies whilst minimising environmental impacts. The EIAR updated the 2013 ES and where impacts were predicted to be less than those already assessed, a new assessment was not undertaken as the conclusions drawn in the original 2013 ES remained valid.

The consents require the works be constructed in accordance with the licence, the application and supporting Environmental Impact Assessment Report (EAIR) and related documents

This CEMP, and the remaining consent plans have been put together considering the commitments made on the EIAR and corresponding consent conditions.



# 4 Performance Monitoring

# 4.1 ECoW Compliance Monitoring and Reporting

Compliance reporting to MD-LOT will be undertaken using the template Inch Cape ECoW Monthly Compliance Report (Appendix D).

MD-LOT may also undertake monitoring of compliance with the Inch Cape Consents and approved Consent Plans through periodic site inspections. With appropriate notification, Inch Cape will facilitate access to all offshore construction activities for this purpose.

Table 4.1 lists the sources of data which may be utilised (but not limited to) by the Inch Cape ECoW in order to monitor compliance with the Consents and Consent Plans.

Table 4.1 Proposed routine Inch Cape construction environmental reporting.

Source	Source Description		Frequency
Daily Progress Reports (DPRs)	Log of daily activities covering the previous 24 hours, including records of any environmental incidents/observations/drills/inspections	All vessels	Daily
Daily activity logs	Log of daily activities on Inch Cape directly chartered vessels covering the previous 24 hours, including records of any environmental incidents/observations	Where applicable, Inch Cape directly chartered vessels	Daily
Daily progress emails	Email from offshore Inch Cape personnel updating Inch Cape construction team on progress (including tracking progress, details of incidents/observations, emerging issues/risks etc.)	Client Representatives	Daily (occasionally one every 12 hours)
Marine coordination update	Daily call to discuss safety, health and environmental incidents, activities during the previous 24 hours and a look ahead to activities taking place over the following 24 hours. Interaction with fisheries shall also be covered.	Marine Coordinator	Daily
Marine coordination update minutes	Written record of daily marine coordination updates including progress diagrams and vessel reports	Marine Coordinator	Daily



Source	Description	Responsibility	Frequency
FLO activity summary report	Log of FLO activities and spreadsheet monitoring compliance with the FMMS	FLO	Monthly
Incident and near miss notifications	Notifications via email from the Contractors, followed up with incident report updates and action closure.	All vessels	As and when they occur
Vessel walkdown inspections	Vessel walkdowns inspections will be conducted before and during mobilization, and while doing work offshore. General aspects to be checked include:  Documentation  Bunkering  Ballast water  Waste  Chemicals and oils  Deposits and dropped objects  INNS and anti-fouling  Vessel personnel awareness  Incident reporting  Findings and recommendations to be discussed with and actioned by the Contractor. Inch Cape will track findings/recommendations until satisfactory close-out.	ICOL Environmental Lead, HSE Lead, Offshore ECoW.  Principal Contractors shall facilitate access to the vessels prior reasonable notification.	Prior to vessel mobilisation  During works, depending on duration and nature of activity
Marine Pollution Contingency Plan drills	Monitoring of MPCP drills for relevant vessels depending on spill risk. These MPCP drills should be conducted by the Contractor prior to vessel mobilisation or prior to fuel being bunkered. Note this is in addition to vessel SOPEP drills required under MARPOL	ICOL Environmental Lead	Prior to vessel mobilisation Prior to fuel bunkering Periodically, to be agreed with Contractors thereafter
Contractor environment meetings	Weekly meetings chaired by the Contractor Environment Advisor where items such as progress and environmental compliance with consents/licenses, etc. are discussed	CEA, ICOL Environmental Lead and Offshore ECoW	Weekly or as agreed with the EM



Monitoring of any environmental effects of the Inch Cape Project is set out in the Project Environmental Monitoring Programme (PEMP), as required by the Section 36 and Marine Licences conditions, and covers the preconstruction, construction and operational phases. The primary focus of the preconstruction monitoring is on seabirds and marine mammals. The delivery of monitoring requirements detailed in the PEMP will be ICOL's responsibility throughout construction.

### 4.2 Inch Cape Compliance Schedules

The Inch Cape Environmental Lead will develop specific compliance schedules for each Principal Contractor to help Inch Cape and the Contractors keep track of the different deadlines for deliverables submission, key notifications to be made, planned audits / inspections, MPCP drills, etc. These schedules will be used on the weekly environmental compliance meetings to be held with the Principal Contractors, package personnel and ICOL ECoW.

The updated compliance schedules will be issued to the PC after each meeting.

#### 4.3 Audits and Inspections

Environmental management audits will be conducted by Inch Cape personnel on key packages / work scopes as deemed necessary based on risk. These audits will be agreed and arranged with the different Principal Contractors, Contractors (and Subcontractors) as required and entered in the ICOL HSE Audit Schedule.

Vessel walkdown inspections to establish the level of environmental and consent compliance readiness prior to or during mobilisation, and to monitor compliance with the consents during works shall be conducted by the ICOL Environmental Lead and / or ICOL ECoW on the main installation vessels throughout the duration of the project. The periodicity of the inspections while vessels are conducting the works will be agreed with the Principal Contractor based on previous inspection findings, environmental performance of the vessel, duration of the scope, previous audits conducted by the Contractor or Principal Contractor, etc., in any case, the main construction vessels will be inspected by ICOL and or ICOL ECoW at least once every 12 months.

The ICOL audit / inspection reports will be issued to Contractors within 2 weeks of the date of the audit/inspection. The reports will be reviewed and approved by the Package Manager / Construction Manager prior to issue to the contractors.

Principal Contractors will conduct their own Inch Cape environmental management and consent compliance audits as per their own management systems and there is an expectation that they will conduct their own vessel inspections (including Contractors and Subcontractor vessels) prior to



mobilisation and during the works. Some of these inspections could be conducted jointly with ICOL and ICOL ECoW.

Principal Contractors shall agree with ICOL and ICOL ECoW the timeframes and the extent of any corrective and preventive measures to be implemented to address any non-compliances identified.

Principal Contractors shall provide Inch Cape with their Environmental Audit / Inspection plan within 4 weeks of contract signature the project.

Contractors shall provide Inch Cape with the following pre-audit / inspection information as a minimum:

- Vessel CMID or equivalent
- HSE Statistics: 3-5 years (vessel and construction activities)
- Latest Vessel / Construction Activities Environmental Audit

MD-LOT or any authorised person may also undertake monitoring of compliance with the Inch Cape Consents and approved Consent Plans through site inspections. With appropriate notification, Inch Cape and the Contractors will facilitate access to all offshore construction vessel / activities for this purpose.

#### 4.4 Environmental Workbook

The ICOL Environmental Lead will maintain a live workbook to register the audits, inspections, incidents, non-compliances, including the corresponding action tracker. The ICOL ECoW will use this workbook as a source of information for generating the ECoW Monthly Compliance reports to be submitted to the MD-LOT and other stakeholders. It will also be used to provide regular updates on compliance and incident close out to Project Management.



# 5 Inch Cape References

# Table 5.1 Consent Plans and other Key documents

Document Number	Title
IC02-INT-EC-OFC-004-INC-PRG-001	Construction Programme (CoP)
ICO2-INT-EC-OFC-004-INC-PLA-001	Construction Method Statement (CMS)
ICO2-INT-EC-OFC-008-INC-PLA-001	Vessel Management and Navigational Safety Plan (VMNSP)
ICO2-INT-EC-OFC-013-INC-PLA-001	Lighting and Marking Plan (LMP)
IC02-INT-EC-OFC-010-INC-PLA-001	Operations and Maintenance Environmental Management Plan (OEMP)
ICO2-INT-EC-OFC-005-INC-STR-001	Piling Strategy (PS)
ICO2-INT-EC-OFC-017-INC-PLA-001	Project Environmental Monitoring Programme (PEMP)
IC02-INT-EC-OFC-012-INC-PLA-002	Cable Plan – Export Cables (CaP – EC)
IC02-INT-EC-OFC-012-INC-PLA-001	Cable Plan – Inter-array Cables (CaP - IAC)
IC02-INT-EC-OFC-021-INC-PLA-001	Protocol for Archaeological Discoveries (PAD)
ICO2-INT-EC-OFC-018-INC-STR-002	Fisheries Management Mitigation Strategy (FMMS)
IC02-INT-EC-OFC-011-INC-PLA-001	Emergency Response Co-operation Plan (ERCoP)
IC02-INT-HS-PPP-004-INC-PLA-002	Client Emergency Response Plan (Client ERP)
IC02-INT-HS-PPP-006-INC-STR-001	Employers HSE Requirements
IC02-INT-HS-PPP-005-INC-PRO-001	ICOL Incident Reporting and Investigation Procedure
IC02-INT-EC-ONC-012-RRP-RPT-002	ICOL Onshore Transmission Works- Flood Risk Assessment
IC02-INT-EC-ONC-004-INC-PLA-001	ICOL Onshore Transmission Works – Construction Environmental Management Plan



# **Appendices**

# **Appendix A – Contractors Deliverables**



Table A -1: Construction Phase Inch Cape Proposed Contractor Reporting Deliverables

Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Daily Progress Reports (DPRs)	HS and Environmental KPIs including details of any environmental incidents or near misses	All vessels	Daily	ICOL (all package and construction personnel including ECoW)	ICOL	N/A	Contractor template
Weekly Environmental Reports	Including details on:  Environmental incidents / Non compliances – number, details on root causes, action taken and planned and scheduled close out.  Summary of environmental drills conducted.  Summary of environmental related observations received by Contractor vessels and actions taken.  Interaction with fisheries (other than incidents).  Inspections / audits conducted – purpose and key findings.  Awareness training / Environmental TBT conducted.  Waste quantities generated and transferred.  Environmental Aspects and Compliance Registers updates.	Principal Contractor	Weekly	ICOL (all package and construction personnel including ECoW)	ICOL	Can be combined with health and safety reporting	Contractor template
Environmental Compliance progress calls minutes of meeting	Teams calls to run through: Actions on meeting tracker. Contractor Compliance Schedule (ICOL deliverable). Environmental incidents and non-compliances, drills, awareness campaigns, etc. Inspection / Audit plan. Upcoming consents deliverables (TAR, chemical list, etc.). ICOL / MD-LOT updates	Principal Contractor	TBC with Contractor depending on level of activity	ICOL (Environmental Lead, ECoW, Package and Construction personnel as required)	ICOL	N/A	Contractor meeting tracker



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Vessels, agents, Contractors and Sub- Contractors	Provide the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company are fully detailed in the Vessel Report.	Principal Contractor	No later than 3 weeks prior to mobilisation and then weekly throughout construction	ICOL Lead Marine Coordinator, Environmental Lead and ICOL ECoW	MD-LOT (via Inch Cape webpage)	Submission via ICOL document process.	Inch Cape website (Persons Acting on Behalf of the Licensee Report and the Vessel Report)
Seabed Deposits Calculations	Provide the details of any substances and objects and the calculations of the estimated construction material to be used on the scope of work	Principal Contractor	Within 4 weeks of contract signature	ICOL Consents team, ECoW, Environmental Lead	ICOL	Submission via ICOL document process.	Inch Cape to provide
Inch Cape Environmental Aspects and Impacts Register	Each Principal Contractor is required to produce a project environmental aspects and impact register to demonstrate that the Contractor has identified and controlled environmental risks associated with their scope of works.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL (all package and construction personnel including ECoW)	ICOL	Submission via ICOL document process.	Contractor template
Inch Cape Environmental Compliance Obligations Register	Each Principal Contractor is required to produce a project environmental compliance obligations register, to demonstrate relevant legal and other requirements (including the Inch Cape Consents and Consent Plans) have been identified and are being managed effectively as part of their work scope.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL (all package and construction personnel including ECoW)	ICOL	Submission via ICOL document process.	ICOL or Contractor template
Waste Management Plan	Each Principal Contractor is required to produce a Waste Management Plan, that details all waste management procedures for their activities (including Contractors and Subcontractors), details of expected waste arisings and proposed procedures for waste management. This is in addition to the Garbage Management Plan of the vessels which usually don't not cover the project operational waste.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template
Vessel Specific Bridging Documents	Each Contractor is required to produce emergency response and environmental management bridging documents for each vessel to ensure the specific project environmental requirements (including reporting) are clear and easily accessible for offshore personnel.	All Vessels	Prior to mobilisation	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Scheme for contingency planning to deal with a flood event at Landfall	Prior to commencement of landfall works, the Contractor will submit a plan for Inch Cape approval, to deal with contingency planning for a flood event during the construction period when the coastal rock armor defense has been deconstructed.	Landfall Contractor	Six weeks prior to the commencement of the work.	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template
Contractor Environmental Compliance Audit / Inspection Schedule	PCs shall provide Inch Cape with their Environmental Audit / Inspection plan for the work scope/s.	Principal Contractor	Within 4 weeks of contract award	ICOL (all package and construction personnel including ECoW)	ICOL	This can be part of the Contractor Health and Safety Audit /Inspection plan	Contractor template
Notice to Mariners and Kingfisher Fortnightly Bulletin	Information required for ICOL to produce and issue Notices to Mariners and information to Kingfisher Fortnightly Bulletin	Principal Contractor	No later than 3 weeks prior to the specified marine activity	ICOL Lead Marine Coordinator	Multiple users	N/A	Email
Dropped Object to sea	All dropped objects shall be notified to the Inch Cape Marine Coordination Centre as soon as possible and followed up with a dropped objects pro-forma and initial report within 24 hours.  Contractor shall submit the dropped objects pro-forma to those listed on the pro-forma within 24 hours of the incident occurring.	Contractor / Vessel Master	Within 60 min to the Duty Marine Coordinator Submit proforma within 12 hours if object not recovered	Inch Cape Duty Marine Coordinator ICOL Client Representative Package Manager/Construction team ICOL ECoW & Env. Lead As listed on Proforma	MD-LOT - depending on whether retrieval possible within 24 hrs of object being dropped	N/A	Current version of MS Renewables Dropped Objects Form (Appendix. B2)
Spills to sea	All spills to sea shall be notified to the authorities (by phone) and Inch Cape Marine Coordination Centre as soon as possible and followed up with a POLREP form and initial report within 24 hours.	Contractor / Vessel Master	As soon as reasonably practicable to the Coastguard and within 60 min to Duty Marine Coordinator	MCA Marine Coordinator ICOL Client Representative Package Manager/Construction team ICOL ECoW & Env. Lead (will notify MD- lot)	MCA MD-LOT ICOL	N/A	POLREP form (Appendix B1).



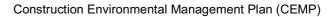
Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Archaeological discoveries	Report any discoveries in line with Inch Cape PAD and appendix B3 of this document	Contractor / Vessel Master	As soon as reasonably practicable	ICOL Duty Marine Coordinator ICOL Client Representative Package Managers / Construction Team ICOL Consents Team ICOL ECOW	ICOL Archaeological Consultant Historic Environment Scotland Receiver of Wreck	All discoveries, not just ones of archaeological potential	Email
Infringements on AEZs	Report any AEZ infringements in line with Inch Cape PAD	Contractor / Vessel Master	Within 60 min to the Duty Marine Coordinator	ICOL Duty Marine Coordinator ICOL Client Representative ICOL Package Manager/Construction team ICOL Consents Team ICOL ECOW and Environmental Lead	ICOL Archaeologist Historic Environment Scotland	N/A	Email
Interaction with commercial fishing activity	Engage with the ICOL FLO on matters where Contractor will or has impacted on commercial fishing activities so as to mitigate the effects on commercial fishing activity in the area.  Report all incidents with commercial fishing vessels/snag of gear as per reporting requirements.  Where interactions involve any conflict, this shall be reported without delay	Contractor / Vessel Master / OFLO	Weekly as standard Conflicts and incidents reported within 60 min to the Duty Marine Coordinator	ICOL Duty Marine Coordinator ICOL FLO	ICOL	N/A	Email Also to be noted on DPRs and Weekly Environment Reports
Force majeure	Full details of the circumstances of the deposit of any substance or object into the marine environment by reason of force majeure within 12 hours of the incident occurring	Contractor / Vessel Master	Immediately in the event of an incident	ICOL Duty Marine Coordinator ICOL Client Representative	MD-LOT - depending on whether retrieval possible within	N/A	Current version of MD Renewables Dropped



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
				Package Manager/Construction team	24 hrs of object being dropped		Objects Form (Appendix.
				ICOL ECoW and Environmental Lead			B2)
				[As listed on Proforma]			
Transportation Audit Report (TAR)	Reports must be produced stating the nature and quantity of all substances and objects deposited below MHWS. Where appropriate, nil returns must be provided.			Submission via ICOL document process.		via ICOL document	ICOL template
		Principal Contractor	Monthly	ICOL (ECoW, Environmental Lead, Package Manager, Construction Team)	MD-LOT	to subsequently issue next revision of TAR having collated all Contractors data	(not included in this document)
Chemical usage	The Principal Contractor will generate a Chemical List that will be kept up to date as the project progresses.  Depending on the chemical use (in an open system or in a closed containment system) the details to provide and deadlines are different.	Principal	5 weeks prior to	ICOL ECoW and		Submission via ICOL document process	ICOL Chemical List template
	deadililes are different.	Contractor	chemical use	Environmental Lead	MD-LOT	ICOL ECoW to submit Contractors' lists to MD- LOT	(not included in this document)
Digital Hammer Records	The piling Contractor will provide Inch Cape with the digital hammer logs downloaded from the equipment used during the piling activities (specific requirements to be agreed with ICOL).	Principal Contractor	To be agreed with Contractor	MMO ICOL (Client Rep., ECoW, Environmental Lead, Construction team)	ICOL	N/A	As provided by the hammer software



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Lighting Failures	If lighting failure occurs that will take > 36 hrs to diagnose/ repair, Notice to Airmen (NOTAM) to be issued.  Upon completion of the remedial works, the Aeronautical Information Service (AIS) will be notified as soon as possible to enable a cancellation to be issued. The party that originally requested the NOTAM will then issue such notification so that a NOTAM cancelation notice can be issued. Such notification will include the name of the wind farm and the reference of the original NOTAM. If an outage is expected to last longer than 14 days, then the CAA will also be notified (at Windfarms@caa.co.uk) by ICOL directly to discuss any issues that may arise and longer-term strategies.	Principal Contractor	If failure will take >36hrs to repair / diagnose	Inch Cape Duty Marine Coordinator, and NOTAM section of the AIS	NOTAM section of the AIS. CAA	N/A	N/A
Final Commissioning of the Development/Works	Provide take-over certificates and 'as-built' records of the works, for aviation and nautical charting purposes and ensure that local mariners, fishermen's organisations and HM Coastguard are made fully aware.	Principal Contractor	Within 1 week following transfer of assets	Inch Cape Duty Marine Coordinator Inch Cape Client Representative Package Manager/Construction team ICOL Consents Team ICOL ECoW	ICOL	N/A	ICOL to provide
Construction Completion Handover Report	Produce an 'Environmental As-Built Report' that details statistics such as fuel use, waste, incidents and non-compliances, training conducted, and any other information including lessons learned.	Principal Contractor	14 calendar days following date of completion of the licensed activity	ICOL Environmental Lead ICOL ECoW	ICOL	N/A	Contractor report
Final Completion Date	Provide confirmation of Final Completion Date in writing	Principal Contractor	14 calendar days following date of completion of the works.	ICOL (Package Manager Consents Team Environmental Lead ECoW)	MS-LOT East Lothian Council JNCC SHN	N/A	Letter







# **Appendix B – Incident Reporting**



# Appendix B1 - Spills to Sea

The Contractor shall check the specific reporting requirements as per their **own MPCP** and / or bridging document for their own internal reporting, however, as a minimum, for Tier 1 incidents:

- The Contractor Vessel Master or Contractor Senior Offshore Person must notify the HM Coastguard by telephone.
- Notify Inch Cape MCC by telephone within 60 min.
- Follow up with a POLREP submission including the MCC in copy: see POLREP FORM next page.

The initial phone notification to the Inch Cape MCC shall be conducted within 1 hour of the pollution event happening.

**Table B-2 POLREP notifications** 

Contact	Notificati on Method	Tel No	E-Mail Address
HM Coastguard  Telephone  notification		+44 (0) 344 382 0724 ABERDEEN	
HM Coastguard  Submission of  POLREP  electronically			zone4@hmcg.gov.uk ABERDEEN
Inch Cape Marine Coordination Centre Telephone notification		TBC	
Inch Cape Marine Coordination Centre Copy of the POLREP notification	<b>②</b>		TBC



A written initial report with the basic details of the incident and actions taken must be submitted to lnch Cape within 24 hours of the occurrence.

Note: amended

Please refer to Inch Cape Marine Pollution Contingency Plan (MPCP) in Appendix E.

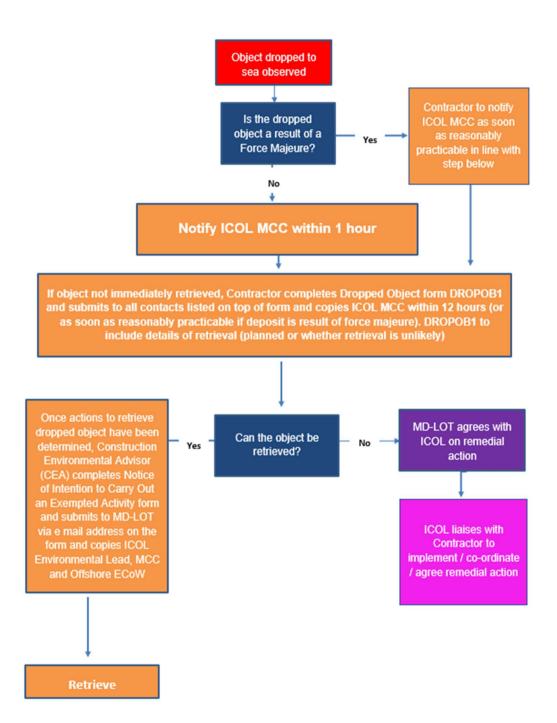
Where a spillage is part of a wider emergency, such as fire or explosion, reference should also be made to the Inch Cape Emergency Response Cooperation Plan (ERCoP) IC02-INT-EC-OFC-011-INC-PLA-001, and Client Emergency Response Plan IC02-INT-HS-PPP-004-INC-PLA-002 and the corresponding Contractor emergency response documentation.



POLLUTION REPORT - CG77 – POLREP
Inch Cape Offshore Windfarm
INITIAL INCIDENT REPORT
A. Classification: -
B. Date/Time/Observer: -  C. Position and Extent of Pollution: -
en estas and Extent en estate an
D. Tide: - Wind: -
E. Weather: -  F. Characteristics of Pollution: -
G. Source and Cause of Pollution: -
H. Details of Vessels in area: -
I. Not Used
J. Any Photographs or Samples: -
K. Remedial Action: -
L. Forecast of oil movement: -
M. Names of others informed: -
N. Other relevant information: -
ENDEND



# Appendix B2 - Dropped Objects to Sea





#### DROPOB1 - OFFSHORE WIND & MARINE RENEWABLES DROPPED OBJECTS FORM

Marine Scotland notification pro-forma for reporting the dropped materials from the offshore wind/marine renewables industry at sea.

This DROPOB1 form should be completed in conjunction with the 'Dropped Objects Policy Guidance'. This DROPOB1 must be submitted electronically to the organisations listed below no later than 24 hours after the event takes place (or as soon as possible where there is likely to be a significant hazard to other sea users). In circumstances where not all the information is available within 24 hours, the form should be submitted and can be updated at a later time.

Marine Scotland	MS.MarineRenewables@gov.scot
Local HM Coastguard Station(s)	[dependent on location of dropped object]
Maritime & Coastguard Agency	navigationsafety@mcga.gov.uk
Kingfisher at Seafish	kingfisher@seafish.co.uk
Northern Lighthouse Board	Navigation@nlb.org.uk
UK Hydrographic Office (UKHO)	sdr@ukho.gov.uk
Navigational Warnings at UKHO	navwarnings@btconnect.com
Scottish Fisherman's Federation	PON2@sff.co.uk
Where geographically relevant:	
West Coast RIFG	Alastair.mcruaraidh.mcneill@gmail.com
Outer Hebrides RIFG	info@wifa.co.uk
Orkney Management Group	orkneyfisheries@btconnect.com
Shetland Shellfish Management Organisation	carole@ssmo.shetland.co.uk

Reporter details		Date of report:
Full name:		Position/Title:
Contact telephone no	:	Contact e-mail:



Operator/Organisation/Company responsible for dropped object:	
Name licensee or vessel responsible for dropped object	
Location/position at the time of dropping object:	
Latitude:	Longitude:
Date dropped:	Time (24hours):
Weather conditions at time:	Depth of sea (metres)
Wind direction (0-360 degree):	Wind speed (knots):
Beaufort scale: tide rate/direction	Wave height (metres):
Dropped Object(s)- provide full description. Materials involved, function of object, dimensions, etc. Provide photos if available.	
If the materials are resting on the seabed are	they near offshore assets? Yes or No:
If yes, please provide details:	



Are the materials likely to float on the sea surface or in water column? Yes or No:
If no, estimated clearance over object:
inno, estimated dearance over object.
If the answer to question above is yes - are materials likely to reach shore or cross an international border? - please specify
an international border: - please specify
Reasons for dropping object(s)
What are the plans to recover the materials? Please specify details, including anticipated
timescales for the recovery operation. If there are no plans to recover the materials the reason for this must be clearly specified.
and must be dealing opening.



What are considered to be the risks and dangers to other users of the sea as a result of the
lost or dumped materials not being recovered?
Any further information that may be useful:
In addition to that mandatory stated at the top of this form, please list the organisations that
you have / will copy this form to:
For internal Marine Scotland use only:
For internal Marine Scotland use only: Incident history:
Incident history:
Incident history:  Date of notification:
Incident history:
Incident history:  Date of notification:
Incident history:  Date of notification:
Incident history:  Date of notification:
Incident history:  Date of notification:  Actions taken:
Incident history:  Date of notification:
Incident history:  Date of notification:  Actions taken:  Final action:
Incident history:  Date of notification:  Actions taken:
Incident history:  Date of notification:  Actions taken:  Final action:



Date closed:	
Reason for closing case:	
MS – Compliance/Fisheries/Renewables	
SFF	
NFFO	
IFGs	
MCA	
Kingfisher	
NLB	
UKHO	

------

Once actions to retrieve dropped object have been determined, the Contractor CEA shall complete the Notice of Intention to Carry Out an Exempted Activity form and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. The template can be found at: Notice+of+exempted+activity.pdf (www.gov.scot) .

This template and the corresponding supporting information should be included in the Contractors EMP or equivalent to ensure that offshore personnel have clarity on what to do to report such incidents.



#### **Table B-2 ICOL Contact Details**

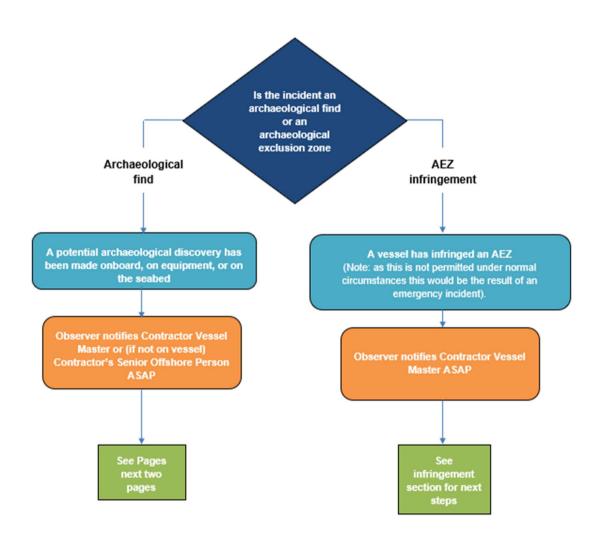
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	[Redacted]	(0)	Susana.gonzalez@inchcapewi nd.co.uk
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinat or	ТВС	TBC	ТВС

-----END------

IC02-INT-EC-OFC-INC-PLA-001 / Revision 1 Uncontrolled if printed

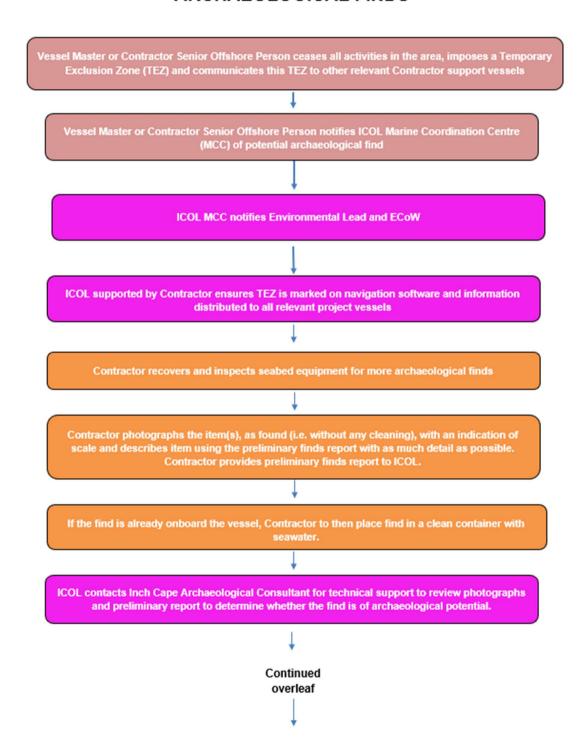


#### Appendix B3 - Marine Archaeology

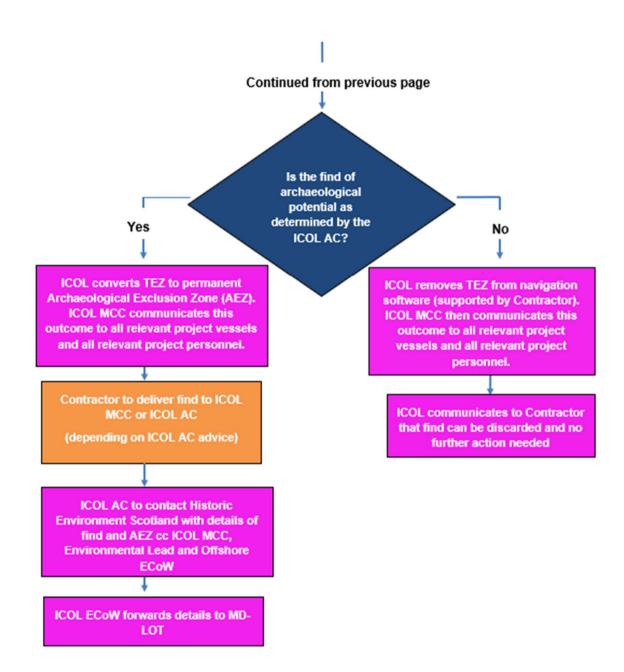




#### ARCHAEOLOGICAL FINDS

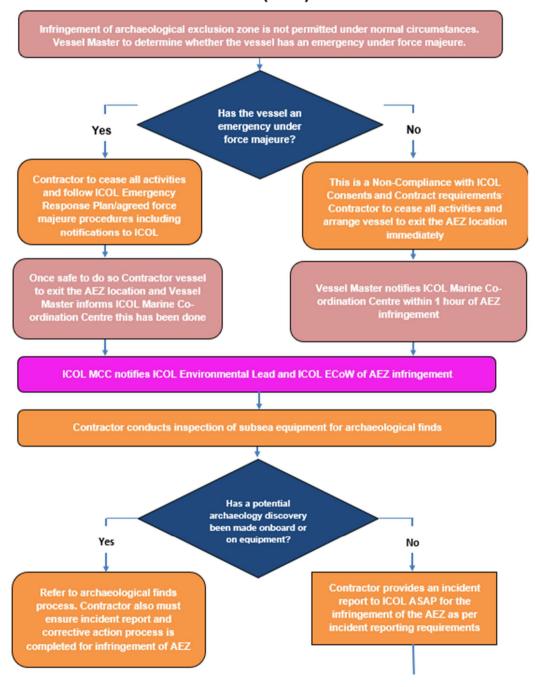








# INFRINGEMENT OF ARCHAEOLOGICAL EXCLUSION ZONE (AEZ)





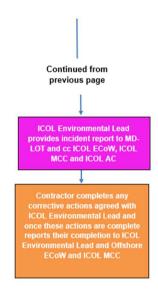


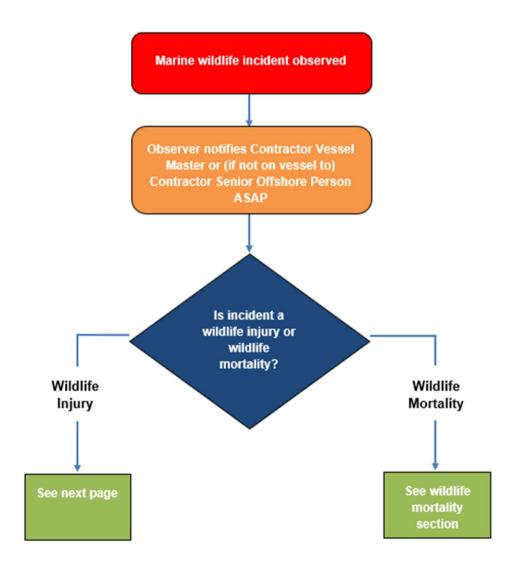
Table B-3 ICOL and Stakeholder Contact Details

Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	[Redacted]		Susana.gonzalez@inchcapewind.co.uk
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	ТВС	TBC	TBC
STAKEHOLDER CON	TAC DETAILS			
ICOL Archaeological Consultant	TBC	TBC	TBC	TBC
Historic Environment Scotland (to be contacted by the ICOL AC only)	TBC	TBC	TBC	TBC
MD-LOT	Duty Officer	+44 (0) 7770 733423		MS.MarineRenewables@gov.scot

------END------END-------

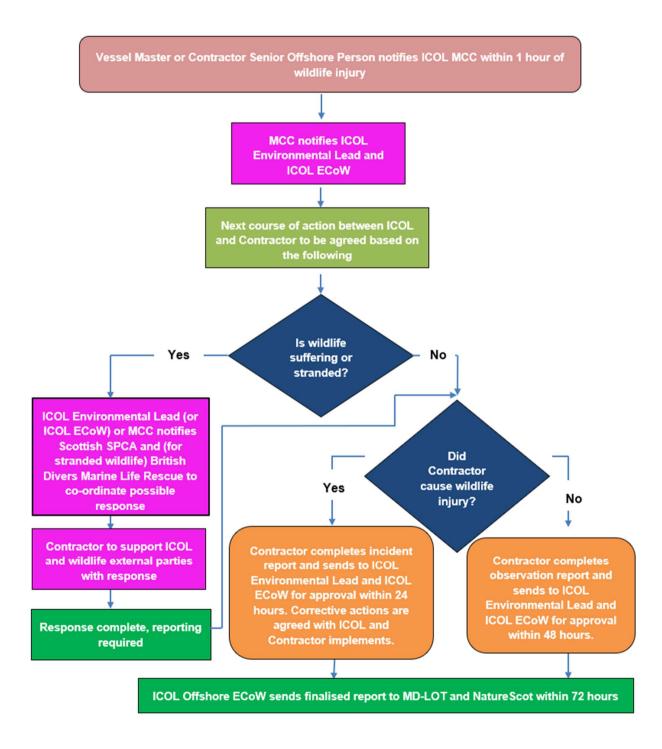


#### Appendix B4 - Marine Wildlife Incident





#### WILDLIFE INJURY INCIDENT





#### WILDLIFE MORTALITY INCIDENT

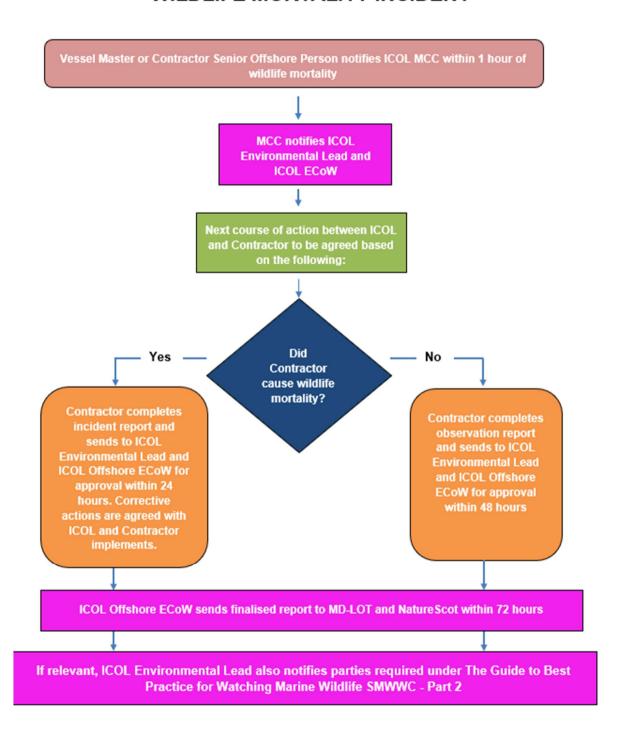




Table B-4. ICOL and Stakeholder Contact Details

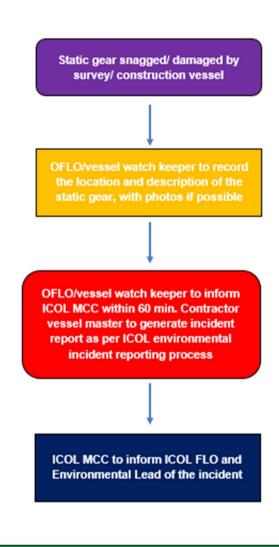
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	[Redacted]		Susana.gonzalez@inchcapewind.co.uk
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	TBC	TBC	TBC
STAKEHOLDER CON	TAC DETAILS			
Scottish SPCA Emergency Number	+44 (0)3000 9	99 999		N/A
British Divers Marine Life Rescue Emergency Numbers	+44 (0)1825 7 [Redacted	65546 (Office hours) and	)	N/A
MD-LOT	Duty Officer	· 「Redactedl		MS.MarineRenewables@gov.scot
NatureScot	01738 444177	(office hours only)		marineenergy@nature.scot
Scottish Marine Animal Stranding Scheme (SMASS) part of Scotland's Rural College (SRUC)	01463 243030 [Redacted	,		strandings@sruc.ac.uk  (N.B. the e mail address in the NatureScot SMWWC guidance has been updated; use above e mail address)

-----END-----



#### **Appendix B5 – Fisheries Liaison Process**

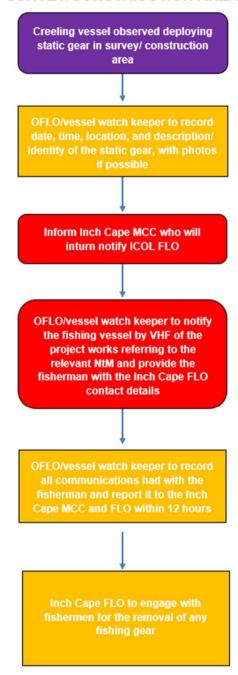
#### SNAG/DAMAGE TO STATIC GEAR



FLO to progress gear loss/ damage procedure

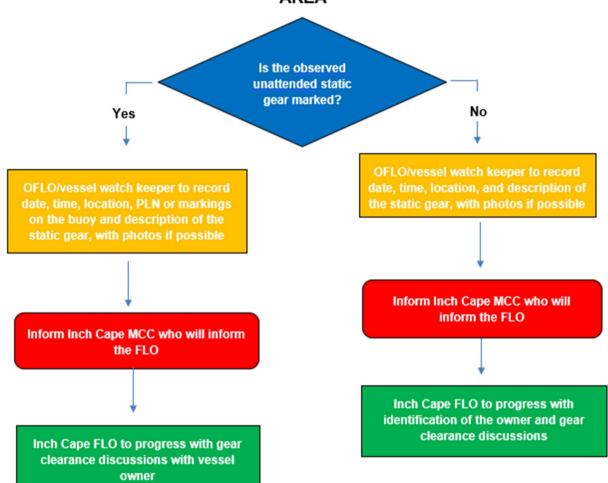


### VESSEL OBSERVED DEPLOYING STATIC GEAR WITHIN THE SURVEY/CONSTRIUCTION AREA



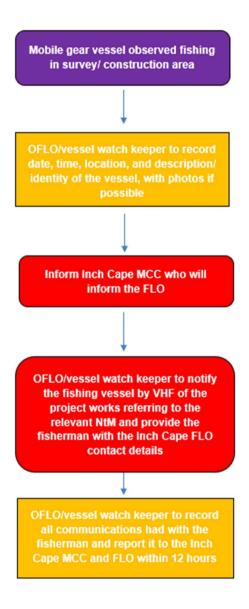


## UNATTENDED STATIC GEAR WITHIN THE SURVEY/CONSTRUCTION AREA





#### MOBILE GEAR VESSEL FISHING IN SURVEY/CONSTRUCTION AREA





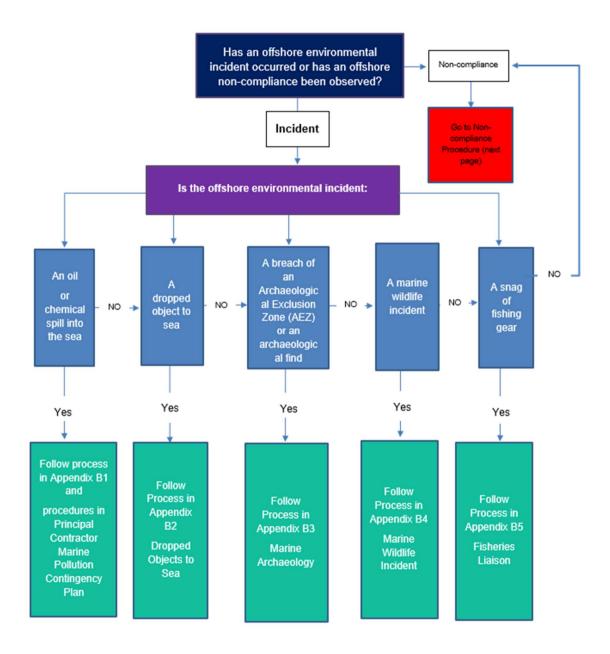
#### **Table B-5 ICOL Contact Details**

Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL FLO (Natural Power)	Peter Berney	[Redacted]		peterbe@naturalpower.com
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
ICOL Consents Fisheries Lead	Gavin Kelly	[Redacted]		Gavin.Kelly@inchcapewind.co.uk
Inch Cape Marine Coordination Centre (MCC)	Duty Marin Coordinato		TBC	ТВС

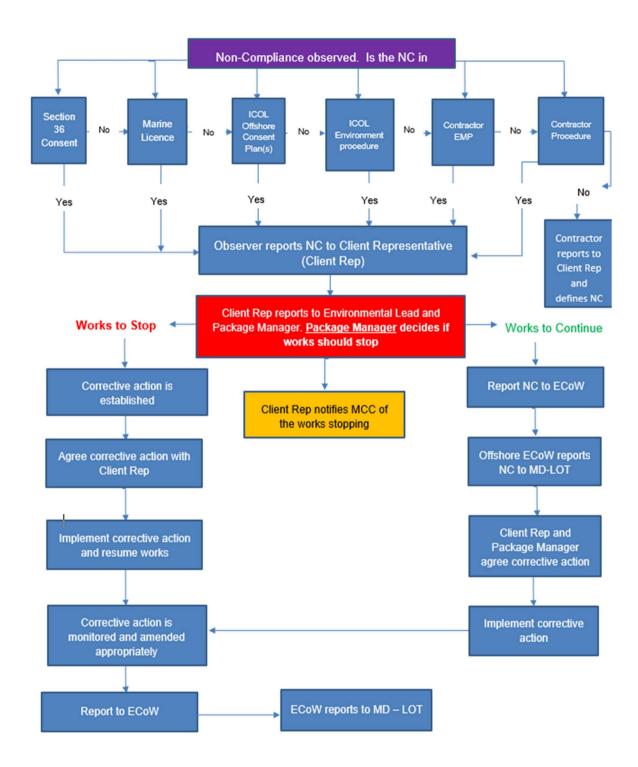
-----END------



# Appendix B6 – Offshore Environmental Incident and Non – Compliance (NC) Procedure









#### **Table B-6 ICOL Contact Details**

Table B-6 ICOL Con	itact Details			
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
Inch Cape Senior Construction Manager	Andy Mee	ТВС	TBC	andy.mee@inchcapewind.co.uk
Inch Cape Environmental Lead	Susana Gonzalez	Redacted]		susana.gonzalez@inchcapewind.co.u k
Inch Cape ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape FLO	Peter Berney	[Redacted]		peterbe@naturalpower.com
Inch Cape Archaeological Consultant	TBC	ТВС	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	TBC	TBC	TBC
Inch Cape Transmission System Package Manager	TBC	TBC	TBC	TBC
Inch Cape Turbine Supply and Service Package Manager	TBC	TBC	TBC	TBC
Inch Cape Foundation Installation Package Manager	ТВС	TBC	TBC	TBC
Inch Cape Cables Package Manager	TBC	TBC	TBC	TBC
INCH CAPE CONTRA	ACTORS CONT.	AC DETAILS		
TBC				
ТВС				
TBC				



### Appendix C –ECoW Non- Compliance Report Template



Inch Cape		
ICOL Offshore ECOW Non-Compliance Report		
Date	Compliance Report No.	
Originator	Compliance Report Rev.	
	Offshore ECoW Workbook Ref	
1. Nature and Details of Non-Compliance	Change 20011 (Vehibbernie)	
·		
2 Astisma to be a locally Free in control to a d		
2. Actions taken by ICOL's Environmental Lead		
3. Root cause analysis		
,		
4. Agreed corrective measures and recommendatio	ns	
3		
Approved by ICOL Offshore ECoW		
Charland Language Charles and		
Checked by ICOL Environmental Manager		
Signed off by ICOL Dockers Mariana		
Signed-off by ICOL Package Manager		



# Appendix D – ECoW Monthly Report Template



Inc	h Cape Offshore ECoW Monthly Compliance Report		
Inch Cape Offshore Wind Farm			
Monthly Offshore ECoW Compliance	Report		
Reporting period:			
Report prepared by:			
Other contributors:			
Section 1 – Summary of construction	activities in Month / Year		
Component	Description of activities		
Preparatory works			
	Monopiles		
Foundations and substructures	Jackets		
(including OSP foundations)	Transition pieces		
	OSP jacket		
Cables	Inter-array cable installation and commissioning		
	Export cable installation and commissioning		
Landfall WTG installation & commissioning			
OSP installation & commissioning			
Section 2 – Summary of environmen	al management matters (exc. environmental and pollution incidents covered by Section 3) arising in Month / Year		
Date	Construction activity	Description of environmental management matter	Corrective action taken and status
Any other relevant comments in relation to environmental management matters in the reporting period			
in the reporting period			
Section 3 – Summary of environmen	al and pollution incidents arising in Month / Year		
Date	Construction activity	Description of incident	Corrective action taken and status
Any other relevant comments in relation			
to incident management in the reporting		,	
Section 4 – Summary of notifications Is	sued in Month / Year		
Section 4 – Summary of notifications Is	Main activity	Notices issued	Issued to
		Notices issued	Issued to
		Notices issued	Issued to
		Notices issued	Issued to
Date Section 5 – Summary of construction	Main activity  activities planned for Month / Year	Notices issued	Issued to
Date	Main activity	Notices issued	Issued to
Date  Section 5 – Summary of construction Component	Main activity  activities planned for Month / Year	Notices issued	Issued to
Date  Section 5 – Summary of construction Component Preparatory works	Main activity  activities planned for Month / Year  Description of activities	Notices issued	Insued to
Date  Section 5 – Summary of construction Component Preparatory works	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Issued to
Date  Section 5 – Summary of construction  Component  Preparatory works  Foundations and substructures	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets	Notices issued	Issued to
Date  Section 5 – Summary of construction  Component  Preparatory works  Foundations and substructures	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures Cables	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Issued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Insued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning	Notices issued	Issued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning OSP installation & commissioning	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning	Notices issued	Issued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning  rogramme updates	Notices issued	Issued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning  Section 6 – Inch Cape Construction I	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning  Togramme updates	Notices issued	Insued to
Date  Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning OSP installation & commissioning Section 6 – Inch Cape Construction I	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning  Togramme updates	Notices issued  Completed to date	Issued to
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# Appendix E– Marine Pollution Contingency Plan

IN THE EVENT OF A SPILL GO STRAIGHT TO SECTION 4



#### 1 Introduction

#### 1.1 Purpose and Objectives

This Marine Pollution Contingency Plan (MPCP) has been prepared in response to the requirements of Condition 14 of Section 36 Consent, Condition 3.2.2.11 of the Generating Station Marine Licence and Condition 3.2.2.10 of the Offshore Transmission Infrastructure Marine Licence as described in section 1.3 of the CEMP.

The overall aims and objectives of the ICOL MPCP are to provide detailed information to those involved in the construction of the Inch Cape Project on the actions and reporting requirements in the event of a pollution incident originating from offshore operations relating to the Project.

The worst-case pollution event associated with the Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels.

All Inch Cape Contractors involved in the Project are required to comply with this MPCP through conditions of contract. Each Principal Contractor will produce a "Contractor Marine Pollution Contingency Plan" (Contractor MPCP) for their works that will be aligned and compliant to this document. The Contractor MPCP will bridge their vessels SOPEPs and the Inch Cape MPCP.

For spill response, Principal Contractors (or ICOL, this is still to be determined) will be responsible for co-ordinating Tier 2 and 3 oil spill response incidents using **suitably qualified and experienced oil spill response subcontractors.** The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not been decided yet. This key information will be included in the next revision of this document.

#### 1.2 Scope of the MPCP

This plan outlines the procedures to protect project personnel and to safeguard the marine environment in the event of an accidental pollution event arising from offshore construction operations relating to the Inch Cape Project. Th This document is applicable to the construction phase of the project, i.e. all construction and commissioning activities to be undertaken up to and including the Final Commissioning of the Development.

This MPCP presents the following information and guidelines to aid a response in the event that there is an accidental release of pollutants into the marine environment resulting from construction (and commissioning) works related to the Inch Cape Project. This marine pollution prevention plan has been produced in line with the requirements of the consent conditions (see table 1.1 of the CEMP), industry standards and best practice. The plan conveys the following:



- A risk assessment of the potential sources and likelihood of a pollution incident.
- Oil spill response procedures and actions, check sheets and industry example proformas.

The Environmental Management Plan and the Marine Pollution Contingency Plan for the operational lifespan of the Development from the Final Commissioning of the Development until the cessation of electricity generation is not included in this document but rather as a separate Operations and Maintenance Environmental Management Plan (OEMP) (IC02-INT-EC-OFC-010-INC-PLA-001) that will be in place until the Decommissioning of the Development.

#### 1.3 Structure of the MPCP

This Marine Pollution Contingency Plan is structured as follows:

- Section 1: Provides the background to the consent requirements, an overview of the MPCP scope and structure, it sets out the scope and objectives of the MPCP.
- Section 2: Provides an overview of relevant interfacing oil pollution contingency plans.
- Section 3: Identifies the sources of pollution and considers the level of risk and steps taken to mitigate against a potential pollution event.
- Section 4: Contains specific pollution response procedures, and roles of key personnel including reporting procedures in the event of a potential pollution incident. It contains the training and exercises requirements, and maps with the environmental sensitivities of the area,

#### 1.4 How to use this Marine Pollution Contingency Plan

This Offshore MPCP is a fit for purpose, operational document that sets out the procedures for Inch Cape Contractors to respond to offshore oil and chemical pollution incidents in an effective and efficient manner, and in co-ordination with other applicable Contractor Emergency Response procedures and the UK National Contingency Plan (NCP).

If you are familiar with this type of document, responding to an incident and / or are a member of an Emergency Response / Incident Management Team, work through the Response Action Plan Checklist as appropriate and refer to the MPCP information guidance (sections 4 to 8) as required for the release quantification and spill trajectory calculations, environmental and commercial sensitivities potentially affected, and emergency response strategies based on the Tier level.

If you are not familiar with this type of document, this Offshore MPCP, is designed to be used primarily by the Contractors Emergency Response Teams (CERT) and also, where applicable, ICOL Incident



Management Team. It cross references/interfaces with the Inch Cape Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002) and the Inch Cape ERCoP (IC02-INT-EC-OFC-011-INC-PLA-001) to provide guidance and instruction to implement an effective emergency response arrangements in the event of an oil or chemical release to sea.

The MPCP is designed to meet the requirements of the Merchant Shipping (Oil Pollution Preparedness, Response and Co-Operation Convention) Regulations 1998 as amended and the Offshore Installations (Emergency Pollution Control Regulations 2002, and to interface with the Project Emergency Response Plan.

In accordance with UK Regulatory requirements and relevant DESNZ Guidance, this MPCP details a three-tiered response capability based on the following key factors: oil type; oil properties; potential quantities; metocean data (metrological & oceanographic); environmental and economic sensitivities and the response capabilities of both the Contractors and their response contractor's Oil Spill Response resources.

All persons expected to use this MPCP as an operational response document will receive familiarisation training covering its use and application. Mandatory Oil Spill Response training may additionally be required as set out in Section 9 - Training and Exercise Programme. Training requirements associated with this MPCP can be discussed with the ICOL Environmental Lead.



## 2 Interfacing Oil Pollution Contingency Plans and Organisations

The following sections set out how ICOL's MPCP will interface with existing oil pollution contingency plans. Within the UK there is an adopted structure and procedure for response to marine pollution events, which clearly defines the roles and responsibilities of industry, the UK Government and Local Authorities.

In the event of a spill originating from the Development activity, once notified, the Marine Coordinator will ensure that other operators and/or vessels in the vicinity that may be impacted, are notified. Where a spill originating from the Development drifts towards and/or reaches neighbouring installations and/or vessels, this may instigate activation of their own pollution contingency plans. Where appropriate ICOL will work to implement a co-ordinated response and share pollution response resources.

Other pollution contingency plans, which may interact with this MPCP in the event of a spill originating from the Development, are identified below.

#### 2.1 Industry Plans

This MPCP interfaces with the following industry standard plans:

- Shipboard Oil Pollution Emergency Plans (SOPEPs)/equivalent vessel-specific spill plan for each vessel.
- Port and Harbour Oil Spill Contingency Plans (OSCPs); and
- Bridging / interface documents between ICOL and Contractors

#### 2.2 Neighbouring Installations

In the event of a spill other installations in the vicinity of the Inch Cape Development must be notified.

Additionally, separate developers to Inch Cape - Seagreen Offshore Wind Limited and EDF Renewables have consents to construct and operate the Seagreen offshore windfarm (located in the outer Firth of Forth and Firth of Tay region) and NnG offshore wind farm (located off the Angus coastline) respectively. These wind farms have their own MPCPs.

The Marine Coordination Centre location is still to be determined.



In addition, construction laydown ports to marshal the foundations, transition pieces (TPs), jackets and wind turbine components and to load them onto the installation vessels will be utilised for deep berthing. These ports, are also still to be determined, are anticipated to have their own OSCP to cover incidents within the port and harbour. The Port's OSCP would take priority over the Inch Cape MPCP in the event of a major spill in the harbour and port in terms of response to an incident. Once these ports are firmed up this document will be updated.

Apart from the above, other ports may be used by a variety of construction vessels and/or other construction activities within the Firth of Forth and Firth of Tay, along the east coast of Scotland and further afield in Europe. Similarly, each of these ports would be expected to have its own OSCP to cover incidents within the port and harbour. The Port's OSCP would take priority over the Inch Cape MPCP in the event of a major spill in the harbour and port in terms of response to an incident.

Assuming pollution from an unidentifiable source is drifting towards the wind farm, ICOL shall comply fully with any instructions from the MCA or other relevant authority, in order to facilitate an appropriate pollution response. This may include stopping all construction operations of the wind farm to allow mechanical recovery of the pollution or dispersant application.

#### 2.3 Local Authority Plans

In the event of actual or threatened shoreline impact, the oil spill contingency plan administered by the relevant local authority will be implemented.

#### 2.4 National Contingency Plan

In the event of a significant oil spill incident, which calls for a Tier 2 or Tier 3 response (see Section 3.1 for Tier definition), the MCA may decide to implement the National Contingency Plan (NCP). In such an event, the MCA will take control of at-sea counter pollution measures and establish a Marine Response Centre (MRC). Should there be a formal hand-over of responsibility to MCA for dealing with the incident, the relevant Contractor's oil spill response resources and facilities will be made available to the MCA.

In the event that the NCP is implemented then the Secretary of State's Representative (SOSREP) will assume full command of the spill response operation. The role of the SOSREP is to represent the Secretaries of State for Transport and Department of Energy Security and Net Zero by removing or reducing the risk to persons, property and the UK environment arising from accidents involving ships, fixed or floating platforms or sub-sea infrastructure within UK waters, within the remainder of the Exclusive Economic Zone (EEZ)/UK Pollution Control Zone (UK PCZ) and on the UK Continental Shelf.



The powers of intervention with which SOSREP is invested provide that the SOSREP can direct a person to take, or refrain from taking, any action of any kind whatsoever. Indeed, if SOSREP is not convinced that the person directed can, or will, take the action then they may cause the action to be taken themselves - even if this includes the total destruction of a vessel. The legislation also creates criminal offences for non-compliance with a Direction. It should be noted that Directions must be given to specified persons who are those being in charge of a vessel or a port or harbour authority. The SOSREP has the decisive voice in the decision-making process in a marine salvage operation that involves the threat of significant pollution. The Director / Deputy Director of Operations will act as a stand-in in the event of SOSREP being unavailable.

Once notified the Counter Pollution and Salvage (CPS) Branch of the MCA will determine the need to establish an MRC. The MRC will consider and implement the most appropriate means to contain, disperse and remove pollutants from the scene in the event of a national (Tier 3 and possible Tier 2) incident. The SOSREP will also determine the need for a Salvage Control Unit (SCU) to monitor salvage activity and ensure that actions being taken do not have an adverse effect on safety and the environment and the need for an Operations Control Unit (OCU) to monitor response actions.

The MCA will determine whether it is necessary to convene the Scottish Standing Environment Group (SEG), to provide advice on public health and environmental issues that require a regional or national response. The scope of the SEG functions will be directly proportional to the scale and nature of the incident, its geographical location, extent, severity, pollutant involved, potential hazard to human health and environmental sensitivities. The scale of the incident and response and their constituent phases are likely to evolve over time and the functions of the SEG will need to be graduated to meet changing requirements, escalating or diminishing in the input to each phase over time (MCA Stop notice 2/16).

The core members that will comprise the SEG will include representatives from Marine Directorate, who will chair the group, Scottish Environment Protection Agency (SEPA), Joint Nature Conservation Committee (JNCC), NatureScot and Public Health Scotland.

Additional groups may be established where pollution threatens the coastline including the Strategic Coordinating Group (STC), to manage the onshore response strategy and the Tactical Coordinating Group (TCG), to develop an onshore operational response plan. A Scientific and Technical Advisory Committee (STAC) may be established, to provide advice to the STC and TCG. The STAC will execute a similar function as the SEG. The STAC will work closely with the SEG and in some circumstances may merge fully to provide consistent advice in the event of a Tier 2 or 3 incident.



#### 3 Pollution Sources and Risk Assessment

#### 3.1 Spill Tier Classification

#### 3.1.1 Introduction

The response strategy that will be adopted in the event of a pollution incident will ultimately depend upon its classification using several factors:

- The size and characteristics of the polluting substance.
- Probable and predicted behaviour of the substance in the sea.
- Consideration of the environmental sensitivities in the path of the pollution; and
- Consideration of the consequences of the different response options on the environment if they were to be adopted.

The worst-case pollution event associated with the Inch Cape Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Oil (hydrocarbon) spills will be classified in accordance with the internationally recognised and accepted three tier oil spill classification system (Figure 3.1).

Volumes of chemicals utilised in the project will be relatively small. Chemical spills will be classified according to the characteristics of the chemical and the behaviour exhibited by the chemical when released into the marine environment (i.e. whether the chemical evaporates, floats on the surface of the water, dissolves in the water, or sinks to the seabed), see Section 7.1.2 for further information on Tier 1 strategies for chemical spills.

<u>Pollution may also take the form of solid debris</u>, if materials dropped into the marine environment subsequently fracture and float. For example, construction materials (TP covers, plastics, packing wood) may fall within the solid debris classification of pollution. Whilst this MPCP focuses on response to liquid pollution, response to solid debris pollution will be largely the same as for a liquid spill and will be reported to all necessary parties. Any object dropped into the marine environment, which is expected to remain whole, will be treated as a Dropped Object incident, rather than a pollution incident.

#### 3.1.2 Tier Classification

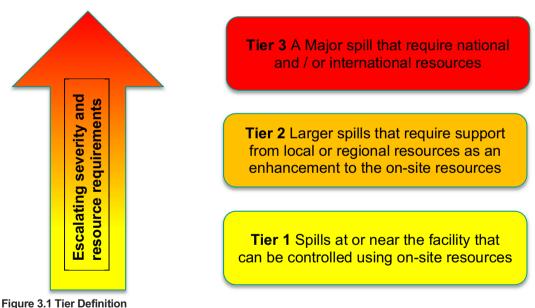
A brief risk assessment of potential spill scenarios and proposed mitigation measures, to minimise or



eliminate the risks has been carried out for the Development (construction - commissioning only) and is presented in Table 3.1. The risk assessment will be updated (if necessary) to ensure that the worst-case spill scenario is assessed as the project progresses. This risk assessment will also be reviewed and updated following completion of the construction/commissioning phase, to ensure that it covers the risks for the operational phase.

For general oil spill response, it is common to divide levels of response into three tiers, according to the severity of the spill and the resources required to combat it. The three tiers are commonly defined as follows (Figure 3.1):

- **Tier 1** response is what is immediately available on site, geared for the most frequently anticipated oil spill.
- **Tier 2** response is for less frequently anticipated oil spills of larger size and for which external resources on a regional scale will be required to assist in monitoring and clean up.
- **Tier 3** response is in place for the very rarely anticipated oil spill of major proportions, and which will possibly require national and international resources to assist in protecting vulnerable areas and in the clean-up.



rigure 3.1 Tier Definition

The conventional view of a Tier 3 scenario is one involving an exceptionally large volume of spilled oil, for example, from a major ship-sourced accident, an oil well blowout, or other such rare but highly significant event. However, a Tier 3 response may also be required for more modest volumes, perhaps



where Tier 2 arrangements may be largely absent or overwhelmed, highly sensitive areas threatened, or highly specialised strategies being required that are not available locally.

The Inch Cape-specific risk assessment in Section 3.3 shows that small operational type spills (e.g., Tier 1 category) are the most likely. However, the risk assessment cannot predict with certainty the Tier level outcome of any spill, and under a worst-case spill scenario, it is possible (although considered highly unlikely) that a Tier 2 or Tier 3 response could be required.

#### 3.2 Marine Gas Oil, Intermediate Fuel Oil and Diesel

The main source of hydrocarbons associated with the Project will be Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used to fuel construction vessels. The quantities of MGO and IFO will be limited to the bunkering capabilities of the vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Marine Gas Oil certificate of quality and test result reports show that MGO, using the International Tank Owners Pollution Federation (ITOPF) classification key for oil types is an ITOPF Group 2 oil and that its composition, including viscosity and evaporative properties, is very similar to diesel. Diesel has very high levels of light ends, and as a result will evaporate and naturally disperse extremely quickly if released into the marine environment. The low asphaltene content prevents emulsification from occurring therefore reducing its persistence in the marine environment. For the purposes of pollution response refer to the advice on the table below for diesel fate properties.

Once spilled in the marine environment, oil immediately begins to undergo weathering, a term used to describe many natural, physical, chemical and biological changes. The changes that the oil undergoes will often influence the effectiveness of response options. Prevailing meteorological and oceanographic conditions, as well as the type of oil spilled, will determine its ultimate fate.

In the event of a release very little evidence of diesel on the sea surface would be expected and evaporation and natural dispersion is predicted to remove a release from the sea surface.



#### Table 3.1 Diesel

**Low-Sulphur Diesel** Data provided below is based on analyses of a low-Sulphur diesel sample taken from a U.S. location in 1998. For purposes of spill modelling, these data are applicable to European diesel fuel and marine diesel oil. **Evaporation** The predicted evaporation curves are based on NOAA's ADIOS2 model (Version 2.0.10). The **Potential Evaporation Curves** shaded area bounds the predicted range of evaporation for a 1000 bbl. release at the following 70 conditions: 27°C and 24-knot wind (dotted line) \* Percent 27°C and 5-knot wind (upper line), 50 4°C and 5-knot wind (lower line). 40 Actual evaporation will depend on spill specific vaporated conditions such as water and air temperature and 30 wind speed. 20 \*For refined products such as diesel, natural 10 dispersion is a significant fate mechanism which 0 limits the amount of evaporation, particularly in 0 20 60 80 100 high energy environments. Time from start of spill (hours) Refined light products do not form mousse Mousse Formation Will not form a mousse because the asphaltene and waxy n-paraffin content is low.

**Table 3.2 Spill Counter Measures** 

Spill Counter Measures				
Natural Dispersion	Diesel will dilute and disperse naturally	Natural evaporation and dispersion properties of diesel		
Chemical Dispersibility	Natural dispersibility would normally preclude the use of dispersants	Most dispersants are effective on oils with viscosities less than 1000-5000 cST.		
Mechanical Recovery	Incident specific	Appropriate measures will be determined and implemented as part of a developing Tier 2/3 response strategy. This will be led by the onshore response team most probably in conjunction with regulatory response organisations.		

#### 3.3 Potential Spill Scenarios and Control Measures for the Development

The table on the next page sets out potential spill scenarios and control measures for the Inch Cape Project.

#### Construction Environmental Management Plan (CEMP)

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
Hydrocarbons Intermediate Fuel Oil (IFO)	Vessel refueling Loss of fuel during vessel to vessel refueling at sea or at port	Vessel bunkering is to be conducted at port only whilst engaged in the Inch Cape Project. Offshore fuel bunkering if approved will be considered a contingency measure only for vessels that are extremely restricted in their capability to leave station to take on fuel, such as jack ups and or semisubmersibles too large to enter northeast ports.  Preparation and review of task-specific risk assessments, method statements and fuel transfer planning tools and checklists.  The bunkering system alarms, emergency shutdown and relief valves are in good working order and tested in accordance with recognized industry standards.  Refueling of vessels or equipment offshore shall, where practicable, only commence during daylight and in good weather conditions.  Refueling operations will be planned in advance.  Fuel transfer operations will be carefully conducted under the supervision of an appointed responsible person on board (e.g. Chief Engineer) and in accordance with each vessel's stipulated procedure and checklist.  A bunker plan shall be developed and posted on the Bridge and in the Machinery Control Room.  Only hoses fitted with non-return valves shall be used.  A TBT shall be conducted by all personnel involved prior to the commencement of the transfer to discuss the plan of work, roles and responsibilities emergency situations and communications during the transfer operations.  Compliance with conditions related to vessel refueling are set out in Merchant Shipping Notice (MSN) 1829 "Ship to Ship Transfer Regulations 2010/2012". This will include the Contractor	Low	Tier 2
Marine Gas Oil (MGO) (Diesel)	Equipment refueling Loss of fuel during refueling of equipment (on vessel or foundation / turbine/ OSP)	applying for offshore fuel bunkering exemption from MCA. MCA requirements for successful approval of this application will include providing details on bunker plan, procedures, approval bunker hose inspection and maintenance arrangements, engagement offshore response subcontractor engagement and details on MCA certified training courses completed (or to be completed) by Contractor Vessel Master and SOPEP teams. MCA will also wish details of fuel supplier(s) to be used and details on their relevant processes. Certain conditions will then be set by MCA (including prior notification of fuel bunkering activities) as conditions of this exemption which the Contractor is required to follow.  A visual lookout will be made at all times during fuel transfer operations to verify hose integrity throughout the transfer and in order to spot any leaks immediately.  All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.  Spill kits shall be readily available for mopping up any minor spills.  Personnel shall be trained in spill prevention awareness, and in the use of spill kits.  Regular inspection and maintenance of equipment.  The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned.	Low	Tier 1



#### Construction Environmental Management Plan (CEMP)

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
		- Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.		
	Vessel to vessel collision Loss of fuel from collision between two vessels	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP) to prevent vessel to vessel collision and vessel to structure collision.	Very Low	Tier 2
Hydrocarbons	Vessel to structure collision Loss of fuel from collision between vessel and structure (e.g. wind turbine)	Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure to prevent collisions.	Very Low	Tier 2
Fuel Oil (IFO)  Marine Gas Oil (MGO) (Diesel)	Vessel stranding / grounding Loss of fuel due to vessel stranding / grounding	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP) to prevent vessel stranding	Very Low	Tier 2
	Failure of plant or equipment Release of fuel due to failure of plant or equipment	<ul> <li>All equipment shall be operated and maintained in good order and in accordance with manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> <li>All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.</li> <li>The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned.</li> <li>Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.</li> </ul>	Low	Tier 1

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	Spillage during use of equipment Small spills during equipment operation	<ul> <li>Preparation and review of task-specific risk assessments and method statements prior to the commencement of the task.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Spill kits shall be readily available near the equipment for mopping up any minor spills and prevent it from going into the sea.</li> <li>Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified</li> </ul>	Low	Tier 1
	Incident  Loss of lubricating oil from collision between two vessels, or collision between vessel and structure, or stranding / grounding of a vessel	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 2
Lubricating Oil	Leakage within WTGs Leakage of lubricating gear oil or grease within the nacelle	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>The inventory of lubricating gear oil is limited within the turbine nacelle as there is no conventional gear box (direct drive).</li> <li>Turbine sensors will enable early detection of loss of fluid and leaks.</li> <li>There is a bunded area within the nacelle to collect lubricating oil in the event of a leak.</li> <li>Gear oil seals shall be routinely checked during the periodic checks conducted on the turbines prior to handover to O&amp;M.</li> </ul>	Low	Tier 1
	Leakage within the OSP Leakage of	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>Transformer oil seals shall be routinely checked during the construction phase of the OSP.</li> </ul>	Low	Tier 1



Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier			
	transformers						
Lubricating Oil	Preparation and review of task-specific risk assessments and method statements.  Personnel shall be trained in spill prevention awareness, and in the use of spill kits.  Equipment shall be used and maintained in accordance with the manufacturer's instructions.  Small spills during equipment operation  Spill kits shall be readily available for mopping up any minor spills.  Fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.						
	Failure of plant or equipment  Releases of lubricating oil due to failure of plant or equipment	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> </ul>	Low	Tier 1			
Hydraulic Oil	Incident Loss of hydraulic oil from collision between two vessels, or collision between vessel and structure, or stranding/grounding of vessel.	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 1			

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	Leakage within WTGs	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>The inventory of hydraulic oil is limited within the turbine nacelle as there is no conventional gear box (direct drive).</li> <li>Turbine sensors will enable early detection of loss of fluid and leaks.</li> <li>There is a bunded area within the nacelle to collect hydraulic oil in the event of a leak.</li> </ul>	Medium	Tier 1
Hydraulic Oil	Failure of plant or equipment Release of hydraulic oil due to failure of plant or equipment, e.g., hydraulic hoses	<ul> <li>All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.</li> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> </ul>	Medium	Tier 1
	Spillage during use of equipment Small spills during equipment operation	<ul> <li>Preparation and review of task-specific risk assessments and method statements.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Equipment shall be used and maintained in accordance with the manufacturer's instructions.</li> <li>Spill kits shall be readily available for mopping up any minor spills.</li> <li>Fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.</li> </ul>	Low	Tier 1
Chemicals	Incident  Loss of chemical load from vessel collision/ stranding/ grounding of vessel	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Chemicals will, where relevant, be selected, stored and managed in accordance with the Offshore Chemical Regulations 2002 (as amended).  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 1
	Leakage from WTGs Leakage of	- Turbine sensors will enable early detection of loss of fluid and leaks.	Medium	Tier 1



Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	transformer fluid or coolant (within and outside the nacelle)	,		
Chemicals	Spillage during use on OSP, WTG, Foundations. Spillage of paints, thinners, solvents, cleaning fluids, etc. during use	<ul> <li>Preparation and review of task-specific risk assessments and method statements.</li> <li>Personnel shall be trained in the correct handling and use of chemicals.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Spill kits shall be readily available for mopping up any minor spills.</li> <li>All hazardous substances shall have a safety data sheet (SDS) which is intended to provide procedures for handling or working with that substance in a safe manner. The handling and use of chemicals and hazardous substances shall be in compliance with the information on the SDS.</li> <li>COSHH assessments should be conducted for Development specific hazardous substances.</li> <li>Segregated storage facilities will be used to control the separation of hazardous substances.</li> <li>Chemicals will be selected, stored and managed in accordance with the consents and the Offshore Chemical Regulations 2002 (as amended) as required.</li> </ul>	Low	Tier 1

Principal Contractors shall include in their MPCP the corresponding risk assessment for their potential spill scenarios (including contractors' and subcontractors') in line with the above.



## 3.4 Fuel oil inventories

This section provides information on the main hydrocarbon (MGO, IFO, diesel) inventories associated with the Project.

Details of the properties associated with these inventories are available in Section 3.2.

Inventories may change due to operational activities and the number and type of vessels present.

In the event of a release, vessel data should be used in the first instance to try and estimate the volumes released to sea, or with the potential to be released to sea.

Principal Contractors will include an inventory section on their MPCP to include the inventories of the vessels under their scope of work.

Installation	Oil Type	Inventory			
Jack up / Semi-sub / Vessel	IFO / Marine GasOil / Diesel (ITOPF Group 2)	Contractors shall include their inventories in their MPCP and or appropriate bridging document and/or Communication and Interface Plan.  The maximum worst-case MGO inventory predicted (heavy lift vessel) is 7 0 0 0 m3.			



# 4 Pollution Incident Response Procedure

### 4.1 Introduction

This section, together with the guidance provided in sections 5 to 8 sets out the procedures to be adhered to in the event of a marine pollution incident from a vessel, a WTG and the OSP during the construction/commissioning of the Inch Cape Offshore Windfarm.

ICOL will require that any spill (actual or probable) into the marine environment, no matter how small, and no matter whether it arises from Inch Cape activities or not, is responded to, following the procedures set out below, whilst a Contractor is working on the Inch Cape Project. Potential spills (i.e. spills which do not enter the marine environment) shall be reported by the Contractor to ICOL as an Environmental Near Miss.

Priority in the event of a spill is to take measures to ensure the safety of personnel and the offshore installations and vessels, and to prevent escalation of the incident.

Where a spill into the sea is part of a wider emergency, such as fire or explosion, reference should also be made to the Inch Cape Emergency Response Cooperation Plan (ERCoP) (IC02-INT-EC-OFC-011-INC-PLA-001) and Client Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002).

## 4.2 Response and Notification Overview

The processes set out below and the next sections of this document should be followed in the event of a marine pollution (hydrocarbon or chemical) incident where a spill originates from a vessel, from vessel related activity, or from a Contractor managed asset (for which the contractor has custody) prior to transfer of ownership to ICOL, during construction and commissioning activities.

When a spill is observed, it will be reported to the Contractor Vessel Master.

The Contractor Vessel Master will report the spill as soon as it is safe to do so within 1 hour of the occurrence, to the Coastguard Operations Centre (CGOC) via phone, and then to the Marine Coordinator via phone. Verbal notification should be followed up when practicable with the submission by the Vessel Master of a Marine Pollution Report (POLREP) via email to the CGOC and the Inch Cape Marine Coordinator, who in turn will notify Inch Cape personnel and the ECoW. (The subject line of the email notification shall include the name of the project).

The Contractor responsible for the vessel/asset from which the spill has originated will engage the vessel SOPEP and assume **primacy for the incident** ensuring ongoing reporting on spill status, as necessary, and initiating response or clean-up operations as required. The relevant Contractor, as the



primary responder, will request support from the specialist spill response contractor as required. The Marine Coordinator will provide a supporting role and assist with communication throughout an incident.

In the event that a regional or national (Tier 2 or 3) response is required, the MCA may take charge of the situation and implement the National Contingency Plan.

The following stages will be observed in managing a marine pollution incident originating from a vessel or vessel related activity, as outlined in Figure 4.1. This is further detailed in **Table 4.1 Response**Action Plan Checklist.

The Response Action Plan Checklist is to be used by the qualified person leading the spill response offshore (i.e. this will be the Contractor Vessel Master or Senior Offshore Representative). This checklist is to be used in conjunction with the instructions provided in section 4.4 (incident notifications) and sections 5 to 8 to estimate the quantity released, environmental sensitivities affected and emergency response strategy options.

In such situations where there is an absence of the Contractor Vessel Master, such as when Contractors are conducting work on the OSP, with an accommodation vessel nearby, ICOL requires the onshore Contractor Emergency Response Team (CERT), to play an enhanced role to support its **most senior offshore person located offshore**, to ensure the correct notifications and updates are provided to ICOL and the Coastguard for Tier 1 spills. Whilst Tier 1 spills can generally be managed by a Contractor Vessel Master without the need of CERT assistance, unless they escalate to Tier 2 and Tier 3 spills, where a Contractor Vessel Master is not present all Tier spills 1,2 and 3 must be supported by the onshore CERT.



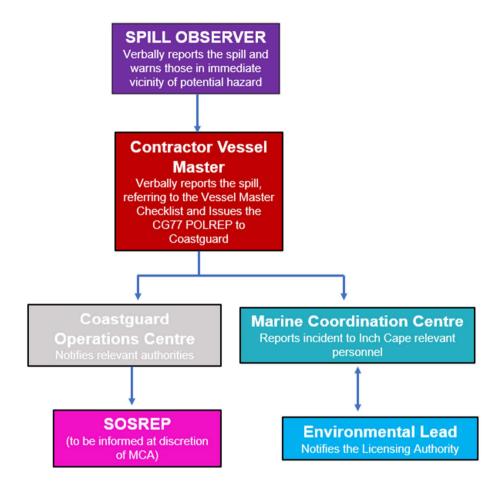


Figure 4.1 Marine Pollution Incident Stages



Table 4.1Response Action Plan Overview							
Step 1 - Initial Action	s						
Time	Vessel M	aster					
	From initial spill report:						
		Establish safety issues					
		Take initial safety actions					
_		Take action to stop / isolate release					
0-20		Establish release parameters					
		Establish onshore support requirements.					
		Discuss onshore support requirements					
Step 2 - Mobilise Res	ources / De	etermine Primacy					
Time	On-Scene	e Commander					
		Mobilise required team(s)					
•		If necessary, minimise risk to personnel / vessel safety by using dispersant					
20-40		Confirm primacy, roles and responsibilities					
Step 3 - Assess and	Quantify						
Time	On-Scene	e Commander					
		Assess actual / potential quantity					
<b>■</b> 40-45		Determine escalation potential					
Step 4 - Company an	d Regulato	ry Reporting					
Time	On-Scene	e Commander					
•		Undertake mandatory external and internal telephone notifications					
45-60		Complete and submit POLREP asap of initial sighting					

Step 1 - Initial Actions	
Timescale: 0 – 20 minutes (or as soon as reasonably practicable)	Actioned
Receive notification of release: location; time; source; cause; oil type; quantity; appearance of oil; escalation potential; weather.	
Record details on the initial incident data collection sheet and initiate a chronological log of events.	
Assume role of On-Scene Commander (OSC). During combined operations confirm the role of On-Scene Commander with other Vessel Masters	
Muster the crew as necessary and suspend all work permits.	
f safe to do so activate the vessel SOPEP – Steps to Control Discharge	
Notify Coastguard. If in Port/Harbour contact Port/Harbour support	
Notify Inch Cape Marine Coordination. The Inch Cape Duty Marine Coordinator is responsible for notifying the Environmental Lead and ICOL management.	
Notify the Contractor appointed spill response subcontractor. Brief of the situation and need for support	
Notify the onshore Contractor Emergency Response Team (CERT) if required (Tier 2/3 incident). If a Tier 2/3 incident and/or an incident which cannot be brought under control immediately using offshore available resources the Contractor Emergency Response Team must be notified as soon as possible.	
Step 2 - Mobilise Resources / Determine Primacy	
Fimescale: 20 – 40 minutes (or as soon as reasonably practicable)	Actioned
Mobilise offshore team members to support response.	
Confirm Contractor appointed spill response subcontractor is aware of the incident.	П
· · · · ·	
If personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon	
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible	_
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT	
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify	
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  f release source is known, calculate the estimated released quantity, check tank volumes / level indicators	
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  f release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  f the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification	Actioned
If personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change	Actioned
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change nelicopter if available.	Actioned
f personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change helicopter if available.  Step 4 - Company and Regulatory Reporting	Actioned
If personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change helicopter if available.  Step 4 - Company and Regulatory Reporting  Timescale: 45 - 60 minutes (or as soon as reasonably practicable)  Report incident to Coastguard using the Marine Pollution Report (POLREP) via email.	Actioned



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Response Action Plan Overview							
Step 5 -Tracking and Sampling							
Time	On-Scene Co	mmander					
<b>■</b> 60-70		Track release.					
00-70		Obtain evidence.					
Step 6 Determine Resp	onse						
Time	On-Scene Co	mmander					
		Mobilise required team(s) Determine actual / potential tier response level.					
=		Confirm response co-ordination for tier level.					
70-100		Consider response strategy.					
		Identify resources required.					
Step 7 - Ongoing Respon	se						
Time	On-Scene Co	mmander					
		Continue to monitor & review response, weather & impact to environment.					
		Keep the CERT updated.					
•		For Tier 1, establish with Coastguard when to stand down. For Tier 2 this decision will be taken by the CERT. For Tier 3 by SOSREP.					
100+		Ensure waste streams are segregated and containerised appropriately.					
		Initiate investigation.					

Contractor Vessel Master Checklist	
Step 5 -Tracking and Sampling	
Timescale: 60 - 70 minutes (or as soon as reasonably practicable)	Actioned
Only if safe to do so, task the Contractor appointed spill response subcontractor to track the movement and parameters of the slick. If unable to track release, request tracking to be done through the CERT. If crew change helicopter is nearby, consider using to provide an indication of general slick size, direction of travel and colour.	
If safe to do so obtain three oil samples. Samples are <u>not required</u> for Diessel spills Request photographs to be taken of the released oil/dispersing sheen from vessel.	
Step 6 Determine Response	
Timescale: 70 – 100 minutes (or as soon as reasonably practicable)	Actioned
Identify any obvious local environmental or commercial receptors (e.g. birds, sea mammals etc near the slick.). Cross reference with environmental data in plan. The CERT will liaise with Inch Cape Environmental Lead and/or ECoW.	
. If the CERT has mobilised, reconfirm tier level.	
Determine response strategy with the CERT and confirm the resources available.	
Monitor and record any changes to the appearance and / or quantity of the released oil.	
Step 7 - Ongoing Response	
Timescale: 100+ minutes (or as soon as reasonably practicable)	Actioned
Continue tracking release using infield additional resources	
Support tier 2/3 resources arriving on-site. Maintain proximity primacy protocols.	
Review previously submitted POLREP and Coastguard communications to establish requirement for any significant updates. Update via offshore or the CERT as appropriate.	
For Tier 1 releases establish, as applicable, the point at which response measures are no longer considered effective and the threat to the environment has been reduced to as low as possible. Acquire clear facts that support the intention to cease response operations.  For Tier 2/3 incidents, the CERT in consultation with all engaged agencies will establish the point at which response operations can cease.	
Ensure waste streams are segregated and containerised appropriately, e.g. hazardous waste	
If safe to do so, commence investigation	



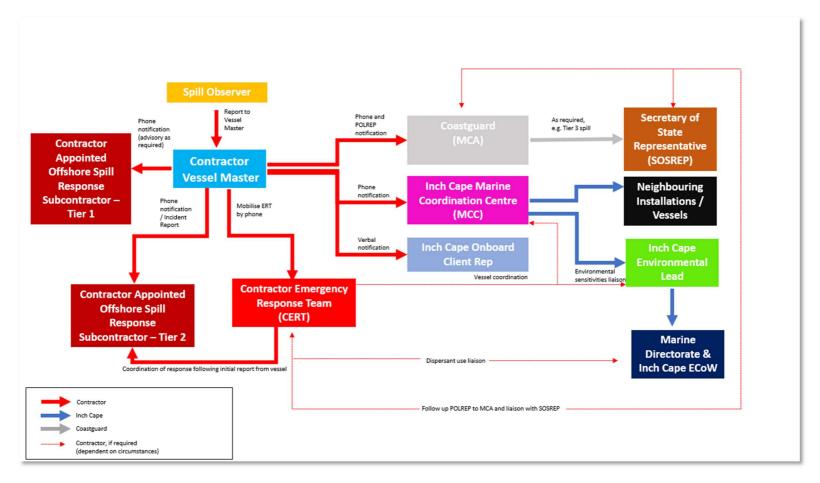


Figure 4.2. Overview of Offshore Spill Response Primacy and Communications



## 4.3 Initial Incident Data Collection Sheet

The initial incident data collection sheet is to be completed by the Vessel Master on receipt of initial notification of a release and can be used as a reference for notifications and when completing the POLREP.

Each Principal Contractor MPCP must include an incident data collection sheet aligned with this template.

Vessel Information									
Date / time of call				Company	у				
Name of caller				Position					
Contact number				Alt. contact number					
Vessel name				Wind Far	Wind Farm name				
Language of selection	Latitude					<u>.</u>			
Location of release	Longitud	le							
Date and time of incident		1							
What has been released to sea?	MGO	diesel		intermed	iate	chemical	Oth	ier:	
Quantity released?				tonnes					m <sup>3</sup>
Is release on-going?	yes	no							
Distance and direction from nearest land (e.g. 12 miles East of Aberdeen)		miles							
Distance and direction from nearest median line (e.g. 110 miles West Norwegian median)	miles								
Water depth		meters	S						
Incident Information									
Confirm date and time of incident						POB			
Incident details: what has happened what is current situation what initial actions have been taken									
Any casualties? (be aware of sensitive information)						ny SAR ties on-goi	ng?		
Is caller at scene of incident? (if not, where is information sourced	d)								



Is there damage to vessel? (if yes provide details)					
Have / will POB be down-manned? (if so, how many)					
Have works fully or partially shut down and / or is there an impact on other vessels/installations?					
Confirm what has been released to sea (diesel, chemical, etc.)					
Confirm quantity currently released (how h determined)	as this been			tonnes	m <sup>3</sup>
Confirm if release is on-going (if yes, what release rate)	t is the				
Worst case spill potential (max inventory, max flow rate)					
Pollution appearance (rainbow, sheen, etc.	.)				
Dimensions of visible spill (length, width ar	nd coverage)				
Shoreline impact likely (if yes, where and when)					
Is pollution likely to reach median line (if yes, where and when)					
Nearest Installations (have they been notifi	ied)				
Wind speed			Wind dire	ction	
Sea state			Wave heig	ght	
Response Information					
Vessel SOPEP been activated					
Has the Contractor appointed spill response subcontractor and onshore Contractor emergency response team been mobilized (if so where and when)					
Has/will aerial surveillance been mobilised (if yes, ETA to scene. If not, how is pollution being monitored)					
What other response resource has/will be (ROV, etc.). Provide ETA where possible.	mobilised to	assist			





Is oil spill modelling being unde modelling, when will results be					
Is an impact assessment being					
Has a POLREP been submitte	d				
Have samples been taken, have where are samples beingsent		samples be	en taken,		
What other agencies informed	Others:				
Other Information					
Agreed time to receive next up additional information					



## 4.4 Incident Notifications (including Roles and Responsibilities)

#### 4.4.1 POLREP Notifications

The Pollution Report (POLREP) is a notification reporting document required by HM Coastguard for pollution reporting, the latest template of this document is provided in section 4.4.5 below.

The following notifications are to be undertaken from offshore; however, in the event that the POLREP cannot be submitted by the Contractor Vessel Master (or if not present by the Contractor Senior Offshore Person), the onshore Contractor Emergency Response Team (CERT) may be tasked to undertake the submission accordingly. The POLREP template and guidance is in Section 4.4.5 below and a word copy should also be provided to Contractor Vessel Masters and CERT. In addition to the external reporting, all completed electronic POLREPs should be emailed to the ICOL MCC. The ICOL MCC will issue all the corresponding notifications to Inch Cape personnel as required.

HM Coastguard contact for Zone 4 (within which the Inch Cape Project is located) is provided as the relevant contact for the Inc Cape Project. The Contractor should also detail any other relevant coastguard contacts within their Contractor MPCP if they have vessels transiting to and from other offshore locations 'on-hire' to the Inch Cape Project.

## Advice on completing the POLREP

- All POLREP telephone notifications should be made within one hour.
- Do not delay submission of the POLREP if all information is not known. The POLREP can be updated at any time.
- Within the "Incident Information", "section, information should be provided to allow the receiver of
  the POLREP to gain an understanding of the incident and the high-level actions being taken to
  respond to the incident from a pollution prevention and response perspective. Brief but adequate
  wording should be used.
- Photographs and samples should be requested to be taken where possible.
- On cessation of the incident, the POLREP should be updated with any changes with regards to final quantities released and corrected text information. For on-going incidents, a final close out POLREP should be submitted to advice receivers of cessation of incident.



#### **Table 4.2 POLREP Notifications**

Contact	Notificati on Method	Tel No	E-Mail Address
HM Coastguard Telephone notification		+44 (0) 344 382 0724 ABERDEEN	
HM Coastguard  Submission of POLREP electronically			zone4@hmcg.gov.uk ABERDEEN
Inch Cape Marine Coordination Centre Telephone notification		TBC	
Inch Cape Marine Coordination Centre Copy of the POLREP notification	<b>②</b>		TBC

Key:		
<b>9</b>	Email POLREP	Telephone Immediately

The Inch Cape Marine Co-ordinator will inform the Inch Cape Environmental Lead and the HSE Lead when becoming aware of a marine pollution incident. The Inch Cape Environmental Lead is responsible for notifying Marine Directorate in the first instance unless delegated to the Offshore Consents Manager.

The Inch Cape Environmental Lead supports the Inch Cape Marine Co-ordinator in co-ordinating communication between ICOL and the relevant Contractor. This ensures ICOL are aware of Contractor's



efforts to respond to the incident. The overall management of the incident to resolution is the responsibility of the relevant Contractor.

The Inch Cape Environmental Lead will also lead incident investigation if required post resolution on behalf of ICOL, following the Contractor's internal investigation.

The Inch Cape Environmental Lead will be required to liaise with the Inch Cape HSE Lead on the above responsibilities, where required.

The Inch Cape ECoW, as an independent party, is responsible for reporting on the incident response thereafter on behalf of ICOL, to Marine Directorate for resolution. The Inch Cape ECoW will liaise between Inch Cape and Marine Directorate as the incident dictates. The Environmental Lead and ECoW will liaise regularly to ensure regular updates are provided to Marine Directorate.

## 4.4.2 Principal Contractor Appointed Spill Subcontractor

Each Principal Contractor is required to appoint a spill response subcontractor prior to offshore works commencement unless other arrangements are agreed with ICOL (e.g. Inch Cape may appoint the Spill Response Contractor to cover the overall project scope). This information will be updated in the next revision of this document.

The appointed Spill Response Contractor must be a Tier 2 Marine Pollution Response Service Provider accredited as per the MCA UK National Standard for Marine Oil Spill Response Providers.

Within the Principal Contractor MPCP reference will be made to the appointed spill response subcontractor arrangements and notification requirements, this should include advisory (for Tier 1 spills) and response (for Tier 2 spills) telephone number contacts, as per the example template in the table below. It is required that the Principal Contractor appointed spill response subcontractor telephone support will be available 24 hours day, all year long.

The Principal Contractor appointed spill response subcontractor may provide Tier 3 advice to SOSREP on the Contractor's behalf. This will be initiated in a Tier 3 incident by the SOSREP.

Table 4.3 Principal Contractor Appointed Spill Response Subcontractor Notification Method

Contact	Notification Method
Tier 1 –Principal Contractor Appointed Spill Response Subcontractor (Advisory)	()
Tier 2 – Principal Contractor Appointed Spill Response Subcontractor (Response)	()



The Principal Contractor is responsible for providing in the Principal Contractor MPCP a detailed list of all spill response equipment on hire from their spill response subcontractor and where located (e.g. details of port where stored or details onboard which Contractor vessel). Note this is not vessel SOPEP equipment (which is listed on the vessel SOPEP) but additional spill to sea response equipment, to be used in an emergency for the Inch Cape Project. Advice on what spill equipment is required should be discussed between the Contractor and their spill response subcontractor.

## 4.4.3 Contractor Emergency Response Team (CERT)

Each Contractor shall have in place, prior to commencement of works, a Contractor Emergency Response Team (CERT) based onshore which can respond to project emergency situations including spills. Each Contractor will list the telephone details of the CERT mobilisation number and also include relevant members of the team contact numbers including the CERT leader and deputy, as per example template below, therefore contact detail will be updated by the Contactors within their Principal Contractor MPCP. The Contractor CERT telephone support will be available 24 hours day, all year long. Each Principal Contractor MPCP must consider logistics of response and reporting across potentially multiple time zones.

Table 4.4 Example Principal Contractor Emergency Response Team Notification Method

Contact	Notification Method
CERT Mobilisation Number	0
CERT Leader	•
CERT Deputy	0

## 4.4.4 Port/Harbour Spill contact Port/Harbour Authority

For Port/Harbour Spills the Contractor will contact the relevant Port/Harbour Authority in the first instance and follow all port processes as advised. Each Principal Contractor MPCP are responsible for providing details of all ports/harbour authorities of relevance to the Contractors under their scope. The Contractors will provide details in advance of their works of the main ports/harbours authorities anticipated to be used whilst working on the Inch Cape project, as per example template in Table 4.5, therefore contact details will be updated by the Principal Contractor. **All incidents that occur whether in the Inch Cape working area or not, must be notified to ICOL** via the Marine Coordination Centre.

Table 4.5 Port/Harbour Spills contact Port/Harbour Authority

Contact	Notification Method	Tel. Number
Port of Montrose	•	+44 (0)1674 672302



# 4.4.5 POLREP Example

POLLUTION REPORT - CG77 – POLREP				
Inch Cape Offshore Windfarm				
INITIAL INCIDENT REPORT				
A. Classification: -				
B. Date/Time/Observer: -				
C. Position and Extent of Pollution: -				
D. Tide: - Wind: -				
E. Weather: -				
F. Characteristics of Pollution: -				
G. Source and Cause of Pollution: -				
H. Details of Vessels in area: -				
I. Not Used				
J. Any Photographs or Samples: -				
K. Remedial Action: -				
L. Forecast of oil movement: -				
M. Names of others informed: -  N. Other relevant information: -				
The Carlot relevant information:				



Guidance is given below on the type of information to be recorded in a CG77 POLREP.

- A. Classification: Select Doubtful, Probable, Confirmed
- B. <u>Date/Time/Observer</u>: Enter date/time of obs. state UTC or local time / Enter name or title of observer
- C. <u>Position and Extent of Pollution</u>: by latitude and longitude, if possible, state range and bearing from some prominent landmark and estimated amount of pollution, e.g. size of polluted area; number of tonnes of spilled oil; or number of containers, drums etc. lost. When appropriate, give position of observer relative to pollution
- D. Tide: Speed/Direction Wind: Speed/Direction
- E. Weather: Conditions and Sea State
- F. <u>Characteristics of Pollution</u>: give type of pollution, e.g. oil crude or otherwise; packaged or bulk chemicals; garbage. For chemicals, give proper name or United Nations Number, if known. For all, give appearance e.g. liquid; floating solid; liquid oil; semi-liquid sludge; tarry lumps; weathered oil; discoloration of sea; visible vapour etc.
- G. <u>Source and Cause of Pollution</u>: from vessels or other undertaking. If from a vessel, say whether as a result of apparent deliberate discharge or a casualty. If the latter, give a brief description. Where possible, give name, type, size, nationality and Port of Registry of polluting vessel. If vessel is proceeding on its way, give course, speed and destination, if known.
- H. <u>Details of Vessels in area</u>: to be given if the polluter cannot be identified and the spill is considered to be of recent origin.
- I. Not Used
- J. Any Photographs or Samples: Give details of any photographs or samples taken.
- K. Remedial Action: Give details of any actions taken, or intended, to deal with spillage.
- L. Forecast: Likely effects of pollution e.g. arrival on shore and estimated timings.
- M. Names: of others informed apart from addressees to this message.
- N. Other relevant information: e.g. Names of other witnesses or references to other instances of pollution which may point to a source.



## 5 Release Quantification

The calculations shown below will be undertaken by the Contractor with support from their appointed spill response subcontractor. The table on section 5.1 is a proposed template used widely by the industry, however, each Principal Contractor MPCP may include a different release size estimation guide aligned with this template.

The volume of oil / chemical spilt should be determined using one of the following methods:

- Measured: based on level indication, tank drop, tank volume, etc.
- Calculated: based upon a known flow rate to sea for a known duration, an estimated flow rate and duration or calculated from known quantities and known concentrations.
- Visual Estimation: If the source / quantity is unknown then a visual estimation can be attained with the tables below, in conjunction with the BONN Agreement Oil Appearance Code. Table 4.9 provides details on Manual Calculation of Surface Release Trajectory

Use the guide below, or an electronic Oil Spill Calculator, to estimate the release quantity. A worked example is provided in Section 5.3.



## 5.1 Release Size Estimation Guide

Release Size Estimation Guide									
Step 1:	Total area: Estimate total size of the area as a square or rectangle (in km²).								
Total Area :	=	Average Width (km)	X		Average Length in (km)			=	km <sup>2</sup>
	Oil release area: Assess the area affected by the slick in km <sup>2</sup> calculated as a % of the total					s a %of the total			
Oil Release	Area (l	Estimated) km²				km²			
Step 3:		ate area by col rea affected in k				-			as a xm <sup>2</sup> respectively)
				Minin	num	Maximum		S	tep 3
Co	olour		Code	(m³ / l		(m³ / km²)	% of A Affect		Area Covered km²
Oil Sheen Si	lvery		1	0.0	4	0.3			
Oil Sheen Ra	ainbow		2	0.3	3	5.0			
Oil Sheen M	etallic		3	5.0	)	50			
Discontinuou	ıs True	Colour	4	50	)	200			
Continuous <sup>-</sup>	ontinuous True Colour 5 200 >200								
		Covered: This : Area Covered		e calcula	ated fo	or each code to	give Area	Cove	redby Colour <b>km²</b>
	Calcul	ate quantity by	colour	: Multiply	y the a	rea covered by	each colo	ur (M	inand Max) by
Step 4:		oropriate quantit for Metallic).	y of oil i	n the tab	ole (i.e	., 10.8 km <sup>2</sup> x 0	0.04 & 0.3 fc	or Silv	very & 7.2 km <sup>2</sup> x
Colour		Step 3 as above			Ste	p 4			
		Area Covered		Min Volume (m³)		Max Volume (m³)			
Oil Sheen Si	lvery								
Oil Sheen Ra	ainbow								
Oil Sheen M	etallic								
Discontinuou	ıs True	Colour							
Continuous 7	True Co	olour							
Step 5: <b>Total quantity:</b> Add all the quantity by colour figures to get total quantity of oil /m <sup>3</sup> .									
		Min Volume (m³)			Max Volume (m³)				
Total Volume (m³)									
Step 6:	Conversion: If necessary, you can covert m <sup>3</sup> to tonnes by multiplying total quantity in m <sup>3</sup> by the specific gravity of the released oil. (Refer to <b>Section 5.1 -Oil Properties</b> for specific gravity of oils).								
Total Volum (m³ x SG)	Total Volume in tonnes (m³ x SG)		Min Volume (tonnes)			onnes)	Max	Volu	ime (tonnes)



# 5.2 Conversion Table Factors

Conversion from	Quantity	Conversion to	Quantity
Kilometres – (km)	1	Nautical Mile – (nm)	0.539
Statute Mile – (mi)	1	Nautical Mile – (nm)	0.868
Barrel (US Petroleum) - (bbl)	1	Litre - (L)	158.987
Barrel (US Petroleum) - (bbl)	1	Cubic metre (m³)	0.159
Cubic metre - (m³)	1	Gallon (US Liquid) – (gal)	264.172
Gallon (US Liquid) – (gal)	1	Litre - (L)	3.785
Gallon (UK Liquid) – (gal)	1	Litre - (L)	4.546
metre <sup>3</sup> to tonnes = (m <sup>3</sup> )	(SG)	tonnes to metre <sup>3</sup> =	(t/SG)

# 5.3 Worked Example

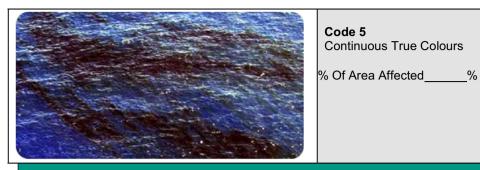
Average Width (km)				5		km	1
Average Length in (km)		4		km			
Total Area (Width x Lengt		20		km²			
Oil Release Area (Estimate)				18		km²	
Colour	Code	Minimum (m³ / km²)		laximum m³ / km²)	% of Area		Area Covered km²
Oil Sheen Silvery	1	0.04		0.3	60%		10.8 km²
Oil Sheen Metallic	3	5.0		50	40%		7.2 km²
Colour Area Covered ki			km²		n Quantity m³)	Maxi	mum Quantity (m³)
Oil Sheen Silvery 10.8 km²			0.43	2 m <sup>3</sup>	3.24 m <sup>3</sup>		
Oil Sheen Metallic 7.2 km²				36 m <sup>3</sup> 360		360 m <sup>3</sup>	
Total Quantity (m³)				36.5 m³ 363 m³			363 m <sup>3</sup>



# 5.4 BONN Agreement Oil Appearance Code

BONN Agreement Oil Appearance Code	
Image	Description
	Code 1 Oil Sheen Silvery % Of Area Affected%
	Code 2 Oil Sheen Rainbow % Of Area Affected%
	Code 3 Oil Sheen Metallic % Of Area Affected%
	Code 4 Discontinuous True Colours % Of Area Affected%





# Code 5 Continuous True Colours

BONN Agreement Oil Appearance Code					
Code	Description				
Code 1 Silvery Colour (0.04 0.3 μm)	The very thin films of oil reflect the incoming light better thanthe surrounding water and can be seen as a silvery or grey sheen. Above a certain height or angle of view the observed film may disappear.				
Code 2 Rainbow Colour (0.3 μm – 5.0 μm)	Rainbow oil appearance is caused by an optical effect and is independent of oil type. Depending on the angle of view andlayer thickness, the distinctive colours will be diffuse or verybright. Bad light conditions may cause the colours to appearduller. A level layer of oil in the rainbow region will show different colours through the slick because of the change in angle of view. Therefore, if rainbow is present, a range of colours will be visible.				
Code 3  Metallic Colour (5.0 μm – 50 μm)	Although a range of colours can be observed (e.g. blue, purple, red and green) the colours will not be similar to 'rainbow'. Metallic will appear as a quite homogeneous colourthat can be blue, brown, purple or another colour. The 'metallic' appearance is the common factor and has been identified as a mirror effect, dependent on light and sky conditions; for example, blue can be observed in blue-sky conditions.				



Code 4  Discontinuous True Colour (50 μm – 200 μm)	For oil slicks thicker than 50 µm, the true colour will gradually dominate the colour that is observed. Brown oils will appear brown, black oils will appear black. The broken nature of the colour, due to thinner areas within the slick, is described as discontinuous. Discontinuous should not be mistaken for 'coverage'. Discontinuous implies true colour variations and not non-polluted areas.
Code 5 True Colour (>200 μm)	The true colour of the specific oil is the dominant effect in this category. A more homogenous colour can be observed with no discontinuity as described in Code 4. This category is strongly oil type dependent and colours may be more diffuse in overcast conditions.



# 5.5 Manual Release Tracking

## **Manual Calculation of Surface Release Trajectory**

An oil slick on the sea surface will move under the influence of:

- Wind speed / direction at 3% of the speed & the direction the wind is blowing from. Current speed & direction at 100% of the current speed & in the direction the current isflowing to.
- Estimating slick movement can be done manually by "vector" addition using an estimate ofcurrent and wind effect.
- Use the table below to plot the track of the oil.

Latitude:	Enter the latitude of the release when first reported.							
Longitude:	Enter the longitude of the release when first reported.							
Wind:	Enter the wind direction and speed.							
Current:	Enter the current direction and speed.							
Elapsed:	Calculate 3% wind speed over 8 hour elapsed period and, current directionand speed.							
Plot:	After calculating wind and tidal bearings for each hour to a maximum of 8 hours, calculate new latitude and longitude position of slick to a maximum of8 hours.							
	Spill moves from point A to B under the influences of the wind a	WIND (20 Knots)						

Release at 0 Hours									
Latitude	N/S		0				e .		
Longitude	E/W		٥				e .		
Wind Bearing				0					
Wind Speed in knots	knots								
Tidal Bearing					۰				
Tidal Speed in knots					knots				

Hours Elapsed	Wind Bearing (°)	Wind Speed (knots)	3% of Wind Speed (knots)	Tidal Bearing (°)	Tidal Speed (knots)			
1								
Release Position		Lat: -		Long: -				
2								
Release Position		Lat: -		Long: -				
3				·				
Release Position		Lat: -		Long: -				
4				·				
Release Position		Lat: -	•	Long: -				



5						
Release Position	Lat: -	Long: -				
6						
Release Position	Lat: -	Long: -				
7						
Release Position	Lat: -	Long: -				
8						
Release Position	Lat: -	Long: -				

## 5.6 Release Sampling Guide

Note: diesel spills should not be sampled for safety reasons i.e. flash point/flammability.

It is advisable to take a sample of the spilt oil if it is safe and possible. The Contractor Vessel Master should request a sample of the oil is collected using the oil spill sampling kit provided by the Principal Contractor appointed spill response subcontractor. Advice on the collection and handling of oil samples is given in the table below. Personal protection equipment advice on sample kit should also be followed to avoid injury.

Table 4.10 below is a proposed template widely used offshore however, each Principal Contractor MPCP will include advice on collecting and handling of oil samples aligned with this template.

#### **Table 4.10 Release Sampling Guide**

### **Number of Samples Required**

MCA recommend three sealed samples:

- One for analysis.
- Second to be retained for evidential purposes
- Third to be retained for The Company's own purposes

### Frequency of Sampling

Minimum of 1 sample / slick / day where possible.

### Size of Sample

- Unweather oils (liquid and subsequently free of water): 10 ml
- Oil exposed to sea surface and forming water-in-oil emulsion: 10 ml
- Overside water discharge (suspected of 100 ppm): 1 litre of discharge
- If such quantities cannot be collected, sampling should still be attempted. In some cases, larger volumes may be required for further testing of the slick.

## **Collecting Method**



- Skim the oil off the surface of the water, ensuring maximum oil content and minimum water (a bucket with a hole may be required to collect the sample initially).
- Avoid using metal tools to collect the sample.
- Any collection of lumpy tar / waxy pollutant should be placed directly into sample containers, with no attempt of heating or melting these samples.
- Oil collected which is attached to floating debris and seaweeds should be placed along with the debris/seaweeds, directly into the sampling container.
- Sample containers should be sealed as soon as possible to minimise the evaporation of the oil's higher fractions and labelled.

### Container Sealing, Packaging and Transporting

- Sample containers should be glass with a large neck and a screw cover and a seal which cannot be
  affected by oil, e.g. no waxed cap seals.
- Plastic/metal containers should be avoided as they can react with the sample and interfere with analysis.
- All sample containers should be sealed with a tamper proof seal.
- Where possible all samples should be securely packed and sealed. Approved fireboard boxes should be used to ensure safe carriage of the samples.
- Samples should be stored in a refrigerator/cold room at less than 5oC in the dark.
- When transporting the materials, vermiculite should be used to surround the samples in the box for protection and to absorb any seepage.

#### Labelling

Each sample should be clearly labelled with:

- An identifying number which is made up of the date and the initials of the official in charge of taking the samples. For example, 10/04/12/JS = Sample taken on 10th April 2012 by John Smith.
- A description of the sample.
- Location that samples was taken from.
- Purpose for which the sample was taken.
- If known, suspected source, e.g., name of drilling rig.
- Whether or not dispersants have been used and, if known, their type and make.
- Method of sampling.
- Name, address and telephone number of person taking samples and of anyone witnessing the taking
  of it.
- Additional information that would be useful include wind direction and velocity; air and water temperature; sample descriptions i.e., viscosity, colour and contaminants and; description of the oil spill i.e. distribution and consistency.

An example of a label and data recording form are given below.

Analysis
The samples should be sent to:
TBC



STANDARD LABELS AND DATA RECORDING SHEETS FOR OIL SAMPLES										
OI	L POLLUTIO	N SAMPLE – S	TANDARD LABEL	OIL POLLUTION SAMPLE - STANDARD LABEL						
ID No.	Date/Time	ne Location) Name and Address of (Grid Ref) person taking sample			Date/Time	Name and Address of person taking sample				
0.0000000000000000000000000000000000000	or continuity o		se complete clearly	For continuity of evidence: Please complete clearly Sample passed to:						
Date	Name	Address	Signature	Date	Name	Address	Signature			



## 6 Environmental and Commercial Sensitivities

Environmental and commercial information already known and identified in the Contactor's Environmental Management Plan, should be supported by actual observations from the site and used by the CERT when determining response strategies and the relevant external agencies. In the event of a release, actual sensitivities will be advised on the day by the Inch Cape Environmental Lead and/or ECoW and relevant authorities. Sensitivities will help to determine the response strategy selected.

A high-level summary of potential environmental sensitivities is provided below for information only. For further details the following chapters of the Inch Cape Environmental Statement (ES 2013) and Environmental Impact Assessment Report (EIAR 2018) should be consulted: Chapter 12 (Benthic Ecology), Chapter 13 (Natural Fish and Shellfish), Chapter 14 (Marine Mammals), Chapter 15 (Ornithology), Chapter 18 (Commercial Fisheries), Chapter 19 (Shipping and Navigation). Please also consult the Project Environmental Monitoring Programme (PEMP) ICO2-INT-EC-OFC-017-INC-PLA-001.

### 6.1 Environmental and Commercial Sensitivities Matrix

#### **Environmental and Commercial Sensitivities Matrix**

#### Seabirds<sup>5</sup>

There are a number of seabird species likely to be present in the Inch Cape Project Area due to the vicinity of several SPAs designated for seabirds amongst other features. According to Inch Cape studies these include gannet, guillemot, kittiwake, puffin, razorbill, fulmar, little oak and artic tern.

According to the studies, core seabird breeding season months for the Firths of Forth and Tay (April to September) are where population of breeding seabirds are highest, due to proximity to breeding colonies, and high populations may also be present during pre and post breeding periods, migration and over wintering.

Several Marine Environmental High-Risk Areas (MEHRAs) have been identified in close proximity to the Export Cables Corridor. These areas have been identified by the UK Government as areas of environmental sensitivity and at high risk of pollution from ships. There is a MEHRA around the Isle of May (approximately 3nm east of the corridor), and at Bass Rock and the adjacent coastline (approximately 1.4 nm, south of the corridor). The Anstruther MEHRA is located at Anstruther coastline approximately 7 nm from the cable corridor. They have been designated on wildlife, landscape, geological grounds and benthic habitats.

#### Fisheries<sup>3</sup>

**Commercial Fishing Effort:** The OWF and Offshore Export Cable Corridor are located in ICES rectangles 41E7 and 42E7. According to the official landing figures creeling (pots and traps), demersal otter trawling (demersal trawls/seine) and scallop dredging were responsible for 98.5% of the fishing activities in the local study area. The more southerly rectangle, 41E7, had the sixth highest average landing, by value, in the National Study Area during the period 2011-2016. In comparison, 42E7 had relatively moderate landings, placing 25<sup>th</sup> nationally, by value. On a regional scale, 41E7 recorded the highest, and 42E7 recorded third highest landings by value. There is also a difference in the fisheries targeted within each rectangle, with landings from the 41E7 dominated by *Nephrops* and lobster and from 42E7 by lobster and scallops. Other species captured in these

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<sup>&</sup>lt;sup>3</sup> This information was abstracted from Inch Cape Environmental Statement 2013 and Environmental Impact Assessment Report 2018 as relevant.



#### **Environmental and Commercial Sensitivities Matrix**

rectangles include crabs (edible, swimming and velvet), razor clams and squid. Notable species found in these rectangles are mackerel and whelks, although together, they account for less than 1.2% of the average annual landings. There is currently an artisanal summer fishery in the Forth and Tay area for mackerel, targeted by small, inshore vessels operating hand lines and jiggers. Local creel vessels may target mackerel during the summer months whilst also setting creels for lobster and crab.

**Nursery:** A number of species of commercial importance are known to use areas nearby as spawning and/ or nursery grounds (Cefas, 2010a, Coull *et al.*, 1998). Those include cod, lemon sole, herring (a key species due to sensitivity to underwater noise). sprat, *Nephrops*, mackerel, plaice, sandeel, hake, Norwegian lobster, monkfish, saithe, spotted ray, spurdog, tope, and whiting. There is also potential for migratory species to be present on the vicinity, e.g Atlantic salmon smolts migrating to feeding ground or adults returning to natal rivers for spawning.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Herring							S	PS	PS			
Cod	S	S	S	PS								
Sandeel	S	S										
Sprat				S	PS	PS	S	S	S			
Whiting					S	S	S					
Mackerel					S	S	S	S				
Plaice	PS											S
Saithe		S	S	S	S							
Lemon Sole				S	S	S	S	S	S			
Spurdog	S	S									S	S
Nephrops									S			
Scallops			S	S	S				S	S		
Edible Crab					S	S	S	S				
Lobster						S	S					
Squid	PS	PS	S	S	S	S	S	S	S	S	PS	PS

### Marine Mammals<sup>3</sup>

The following marine mammal species are the most commonly recorded off the Firths of Forth and Tay:

- Bottlenose Dolphin
- Harbour/Grey Seal
- Harbour Porpoise
- Minke Whale
- White Beaked Dolphin

Sightings tend to be more frequent during the summer months.

### Benthic Ecology<sup>3</sup>

As per the Inch Cape ES (2013), surveys were undertaken to characterise the marine plants and animals on the seabed within the OWF and Export Corridor Project areas. The Development area consisted of sands and gravelly sands with areas of muddy mixed sediment. The epibenthic species found were dead man's finger, horned wrack, brittlestars, hydroids and some small fish and mobile benthic invertebrates. Two habitats, one



#### **Environmental and Commercial Sensitivities Matrix**

regarded as conservation priority in the UK Post-2020 Biodiversity Framework, and the other one listed under the habitats directive was identified on site. The only species of conservation importance found to be living within OWF area was ocean quahog (Artica islandica), a Scottish Priority Marine Feature (PMF) and listed under OSPAR's list of threatened and/or declining species was recorded at moderate abundances. All individuals recorded were juveniles, but greater than 1 mm in diameter.

A number of reef forming polychaetes were recorded (Sabellaria spinulosa and Serpula vermicularis). These species are of high conservation importance when in reef form, however no reef structures were observed. There is one potential nature conservation Marine Protected Area in the vicinity of the Development Area (to the east 1 km distant at its nearest point), the Firth of Forth Banks Complex where Artica islandica has been identified as a PMF in this location. The MPA includes the Berwick, Scalp and Montrose Banks and the Wee Bankie. Strongly influenced by water currents, the mosaic of different types of sands and gravels create a unique mixture of habitats that overlie the underwater banks and mounds within the MPA. The aim of the MPA is to conserve the ocean quahog aggregations, offshore subtidal sands and gravels, and shelf banks and mounds that are present within the Firth of Forth Banks Complex MPA. The glacial ridges of the Wee Bankie are also conserved. Further details are provided in figures 4.4 to 4.6.

The levels of contaminants on the sediments were spatially variable across the OWF and there are no identified areas of enhanced contamination despite the presence of the historical sewage sludge disposal ground at Bell Rock (south of the OWF).

The surveys for the Offshore Export Cable confirmed that substrates in the Forth estuary are mainly sedimentary, with species diversity increasing with increasing salinity and depth offshore. A number of sites, designated for nature conservation are in close proximity of the Offshore Export Cable Corridor. The Isle of May Special Area of Conservation (SAC) is designated in relation to sub-tidal benthic features, with rocky reefs surrounding the island. A number of other SACs cite Annex 1 Habitats as their qualifying conservation interests, including the Firth of Tay and Eden Estuary, the Moray Firth and the River Tay. There is no potential connectivity with these SACs and the Offshore Export Cable Corridor relating to Benthic Ecology or Annex 1 habitats interest due to their remoteness and limited range of direct or indirect effects.

The Firth of Forth Site of Special Scientific Interest covers large areas of the Firth of Forth with the marine Notified Natural Features of mudflats and saltmarsh within its boundary. None of these Notified Natural Features are present at landfall. The survey of the landfall location at Cockenzie indicated it to be typical of a sandy gravel beach with few species present. Of those identified the majority were worms or marine snails.

### Commercial Shipping<sup>3</sup>

Based on the analysis of the marine traffic data, it is considered that commercial vessel activity around the OWF and the Export Cables corridor is relatively low with a number of low trafficked routes passing through and in close proximity to the windfarm.

The principal routes that will be affected during construction works are the north-south routes between Aberdeen and Montrose / Northern Scottish and UK ports, the River Tay Ports, Montrose and Forth / European ports. The busiest of these routes is used by an estimated 2.5 vessels per day and passes through the OWF to go to Northern Scotland. Vessels on these routes, and others which intersect the site, are expected to make minor deviations to increase their passing distance around construction activities. Rolling construction safety zones will be in place up to 500m from the construction activities and there may be more than one present at any one time. It is expected that vessels will deviate around these rolling construction safety zones.

A number of commercial shipping routes have been identified as intersecting the Offshore Export Cable Corridor with defined traffic routes being identified as heading to and from ports in the Firth of Forth and the Firth of Tay.



The figures below show the different range of protected areas in the vicinity of the OWF and the Export Cable Corridor; these include:

- Firth of Forth SPA
- Firth of Tay and Eden Estuary SPA (also a SAC)
- Forth Islands SPA (including Isle of May SAC)
- Montrose Basin SPA
- Outer Firth of Forth and St Andrews Bay Complex (SPA)
- Firth of Forth Banks Complex MPA
- SSSI and Ramsar sites on the East Lothian Coast contributing to the MPA network.
- MEHRAs Marine Environmental High Risk Areas

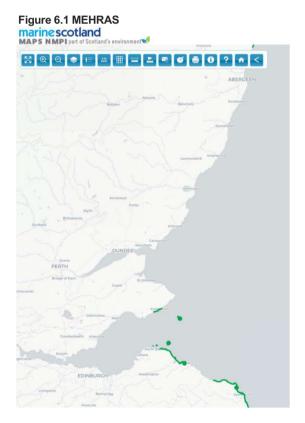


Figure 6.2 Protected Areas Project Area

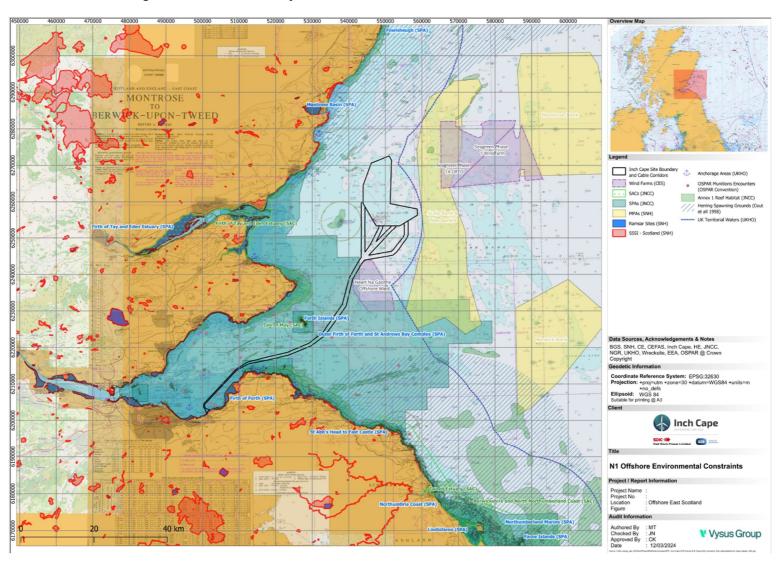
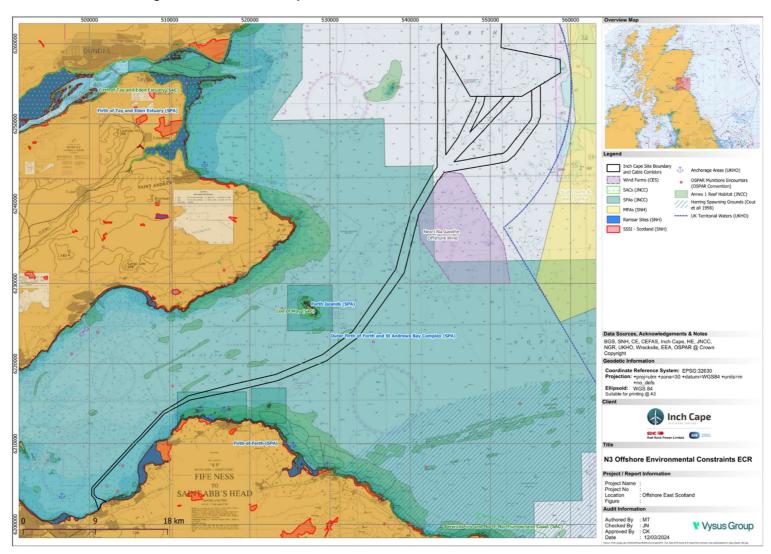
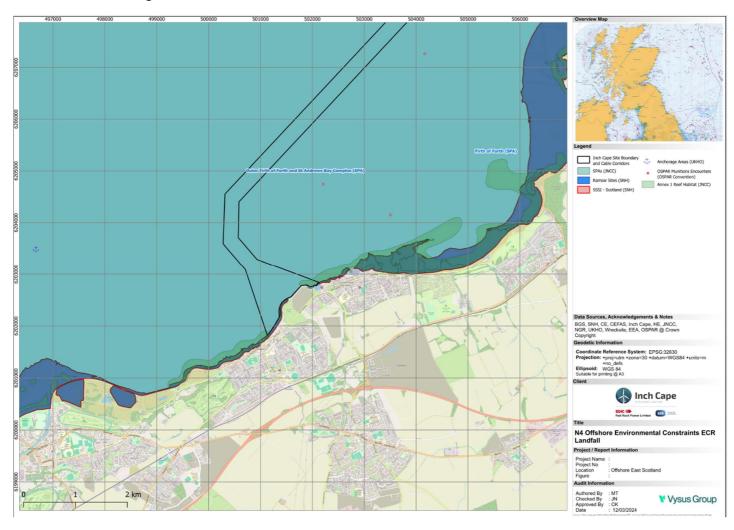


Figure 6.3 Protected Areas Export Cables Area





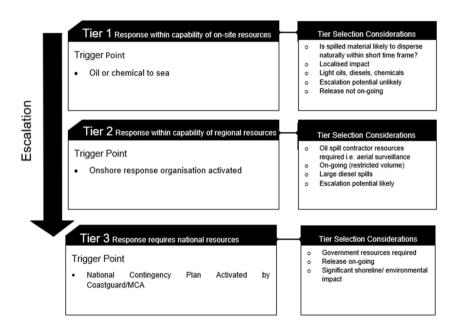




## 7 Tier Selection Guide

The guide below assists the decision-making process in determining the appropriate tier response level for an oil or chemical release to sea. The method of response will be dependent upon several factors including, but not limited to, the incident in question, volume of oil/chemical, oil/chemical type, time of year, weather, sea state and resource availability.

Figure 4.7 Tier Selection Guide





## 7.1 Selecting an Emergency Response Strategy

### 7.1.1 Overview

The appropriate response strategy will depend not only on the potential limitations of each of the possible response options, but also on the type of oil spilled and the environmental sensitivities that are potentially threatened by the spill. Table 7.1 presents the response strategies that are generally followed on the UK Continental Shelf (UKCS), according to spill Tier and oil type.

For chemical spills, Tier 1 is assumed and is discussed in section 7.1.2. below.

Table 7.1 General response strategies according to spill Tier and oil type

Tier &	Response strategies			
Resources	Non-persistent Oil (MGO and Diesel)	Persistent Oil (Hydraulic and Lube Oils)		
Tier 1 (small spill) On site resources	Natural dispersion and monitoring (using support vessel).  If safe to do so, agitate using standby vessel propeller ('prop-wash'), by steaming through the slick at speed.  Liaise with Contractor appointed spill response subcontractor as required.	Natural dispersion and monitoring.  Mechanical recovery where possible.  Liaise with Contractor appointed spill response subcontractor as required.		
Tier 2 (medium spill) Spill Response Subcontractor and CERT	Natural dispersion and monitoring.  Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities.  Consult specialist services from Contractor appointed spill response subcontractor.	Consult specialist services from Contractor appointed spill response subcontractor.  Continue to monitor and evaluate strategy using aerial surveillance.  Consider mechanical recovery where possible.  Mobilise shoreline containment and recovery equipment if shoreline is threatened – Contractor appointed spill response subcontractor to engage additional support if necessary.  Boat-based dispersant application – liaise with Contractor appointed spill response subcontractor as required. This will require approval from Marine Directorate in advance. Unlikely to be approved unless under Force Majeure.		
Tier 3 (large spill) Spill Response Subcontractor, CERT and MCA/SOSREP	Natural dispersion and monitoring (aerial surveillance) Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities. This will require approval from Marine Directorate in advance. Unlikely unless under Force Majeure. Consult specialist services from Contractor appointed spill response subcontractor.	Contractor appointed spill response subcontractor specialist services.  Continue to monitor and evaluate strategy using aerial surveillance.  Consider mechanical recovery where possible. Mobilise shoreline containment and recovery equipment if shoreline is threatened.  Aerial dispersant application. Liaise with Contractor spill response subcontractor as required. This will require approval from Marine Directorate in advance. Unlikely unless under Force Majeure.		

Based on the risk assessment, most oil spills potentially originating from the project are likely to be of small volume (Tier 1) and of light non-persistent oil types. The spill response strategies most



appropriate to this oil spill risk are detailed below.

### 7.1.2 Tier 1 Strategies

### Oil Spills

#### Monitor & Evaluate

For all spills, any oil slick should be monitored from the outset. In the case of the Inch Cape project, this will typically involve monitoring by use of a vessel, either already on site, or mobilised for the specific purpose.

The physical appearance of any oil slick should be monitored closely, in addition to changes in the oil or changes to sea state conditions, which may influence the perceived environmental impact. Dispersant application is not normally necessary for Tier 1 spills.

### **Natural Dispersion**

If light non-persistent oil has been spilled, the best strategy will be to allow physical processes to disperse the oil naturally. However, this strategy should always be backed up by thorough monitoring and evaluation.

If natural dispersion is selected as the key response strategy, it must be demonstrated through close monitoring of the oil slick that natural dispersion is in fact taking place.

If light oil has been spilled, such as diesel or hydraulic oil, the process of natural dispersion can be aided by a technique called prop-washing. This technique should be discussed and agreed between Contractor Vessel Master and Contractor appointed spill response subcontractor.

#### **Chemical Spills**

Volumes of chemicals utilised in the project will be relatively small. A brief summary of potential response techniques for different groups of chemicals (according to their behaviour on contact with water) is presented below.

<u>Gases and Evaporators</u> - The release of a gas or evaporating liquid chemical has the potential to generate vapour clouds that might be toxic or form an explosive mixture with air. In an open environment, toxic vapour will usually disperse as a result of natural air movement and often the only feasible response measure will be to monitor any vapour cloud/plume as it disperses.

<u>Floaters</u> - Floaters may spreads across the water surface to form a slick. For spills involving relatively persistent chemicals that float, it may be possible to detect and monitor floating materials. If safe, it may be possible to consider deploying booms to contain and control the movement of substances.



Skimmers and other oil response equipment may also be used to recover material from the surface. Containment and recovery may not be advisable when dealing with highly toxic or flammable chemicals. In certain circumstances, sorbent materials may be deployed to collect and concentrate a chemical spill.

<u>Dissolvers</u> - The ability to contain and recover dissolved chemicals is extremely limited. Providing means to accelerate the natural processes of dispersion and dilution may be the only way to respond to such chemicals. Some dissolved chemical plumes may, in theory, be neutralised, flocculated, oxidised or reduced by the application of other chemicals, but chemical treatment is unlikely to be practical and would not normally be recommended.

<u>Sinkers</u> - Chemicals that sink have the potential to contaminate the seabed and may persist in sediments. Response may therefore need to consider the recovery of any chemicals and heavily contaminated sediment. In shallow waters, mechanical dredgers and pump/vacuum devices may be used to recover materials.

### 7.1.3 Tier 2/3 Strategies

In most cases, any oil spills from the Inch Cape project are likely to be small in nature.

However, in the unlikely event of a larger oil spill, or if the spilled oil persists, then regional or national response capabilities may need to be mobilised.

Tier 2 spills will require regional response using the Contractor appointed spill response subcontractor and onshore CERT to support the Contractor Vessel Master offshore.

Tier 3 spills will require national resources, the MCA will likely implement the National Contingency Plan and the Secretary of State's Representative (SOSREP) will take command of the incident. This will still require support and co-operation of the Contractor's Vessel Master, Contractor appointed spill response subcontractor and onshore CERT to support the MCA and SOSREP.

The Inch Cape Marine Coordinator will maintain continued communications with those on site (such as the Contractor Vessel Master) and provide assistance to the relevant response cells established by the MCA. The Inch Cape ECoW will, where necessary or requested to do so, liaise with the Standing Environment Group (SEG) and Scientific Technical Advisory Committee (STAC), to ensure the effective transfer of information.

In addition to the response above, the following additional resources may be deployed in response to a Tier 2 or Tier 3 incident.



### Offshore Containment & Recovery

For larger spills of more persistent oil in environmentally sensitive areas, or oils that are not amenable to dispersion at sea, offshore mechanical containment and recovery may be considered as a response option. This would involve the deployment of an oil recovery vessel(s) with offshore oil containment booms and oil skimming equipment.

Mechanical containment and recovery capability would be available through the Contractor appointed spill response subcontractor.

Note that for the general UKCS environment, offshore containment and recovery is not normally considered to be a viable response strategy, due to the rough offshore weather conditions that are often encountered.

However, if a large volume of more persistent oil is spilled and the oil is not dispersing naturally, and the weather conditions are amenable, offshore containment and recovery may be a useful response strategy.

#### **Dispersant Application**

There is the option to apply dispersant by sea and/or air to aid and accelerate natural processes dispersing the oil, thus removing it from the sea surface.

Due to the light nature of the oils associated with the Development, dispersant application is not likely to be a viable response option. However, in the unlikely event of a large spill of more persistent oil, dispersant application may be considered if the oil is not observed to be dispersing naturally.

Appropriate consultation is required with regulatory bodies before initiating the use of dispersant as a response.

Formal approval for dispersant use from the Marine Directorate will be required in water depths of less than 20 metres or within 1 NM of such depths.

However, UK approved oil treatment products may be used without prior consultation with the licensing authority in Force Majeure situations where there is a genuine risk to human life, or to the safety of an installation or vessel, such as where there is a serious danger from fire or explosion.

The window of opportunity to use chemical dispersants will be dependent upon various factors, including the quantity of oil, sea temperature, the nature of the spill (i.e. instantaneous or continuous release), prevailing weather and environmental and commercial sensitivities.

For environmental and commercial sensitivities in the vicinity of the Development, refer to section 4.6 of this document which summarises relevant sections of the Inch Cape EIAR and relevant Consent Plans.



A dispersant response capability should be available through the Contractor's appointment of a spill response subcontractor.

The Marine Management Organisation (MMO) acts on behalf of Marine Directorate for the testing and approval of dispersants and other oil treatment products which are intended for use in all UK waters. It also regularly reviews existing approvals to ensure that products remain safe (MMO, 2015).

The MMO has published a list of the latest oil treatment products approved for use on the UKCS which is regularly updated: : <a href="https://www.gov.uk/government/publications/approved-oil-spill-treatment-products/approved-oil-spill-treatment-products">https://www.gov.uk/government/publications/approved-oil-spill-treatment-products</a>

Forms in section 8 (tables 7.2 and 7.3) must be completed and sent to Marine Directorate via ICOL for dispersant usage.

## 8 Dispersant Application

Prior to dispersant application, the information in Table 7.2 is proposed to be submitted to Marine Directorate. The use of dispersant must be approved by Marine Directorate before use unless under Force Majeure.

Table 7.2 Information required if seeking advice or prior approval of dispersant use

MARINE SCOTLAND email: MS.SpillResponse@gov.scot		
Installation / spill information		
Name of Responsible Person:		
Name of site:		
Location of spill (in degrees of Latitude and Longitude):		
Oil type (description if not known). If crude oil, state type:		
Volume of oil spilled – preferably in tonnes:		
Source of oil spill:		
Potential for further spillage:		
Description of slick – including dimensions and colour:		
Dispersant use information		
Dispersant type(s):		
Dispersant proprietary name(s):		



MARINE SCOTLAND email: MS.SpillResponse@gov.scot			
Quantity / quantities proposed for use:			
Method(s) of application:			
Have efficacy tests been undertaken to confirm hydrocarbons are amenable to treatment? If so, what were the results?			
Location(s) of application:			
Water depth (m) in application area(s):			
Minimum distance (km) from nearest shoreline:			
Minimum distance (km) from nearest median line:			
Environmental sensitivities relevant to location(s) of application (including any protected sites within 20 km):			
Prevailing weather conditions: Wind speed, Wind direction, Wave height:			
Other methods of responses being applied:			

The information in table 7.3 below is required to be submitted to Marine Scotland after the use of dispersant (adapted from DECC, 2015).

Table 7.3 Information to be recorded when using dispersant

Table 7.3 Information to be recorded when using dispersant		
MARINE SCOTLAND email: MS.SpillResponse@gov.scot		
Installation information		
Name of operator:		
Name of site:		
Location (in degrees of Latitude and Longitude):		
Dispersant use information		
Date of use:		
Dispersant proprietary name(s):		
Quantity / quantities used:		
Method(s) of application:		



MARINE SCOTLAND email: MS.SpillResponse@gov.scot			
Location(s) of application:			
Prevailing weather conditions at time of use:			
Wind speed			
Wind direction			
Wave height			
Reason for use:			
Was approval or advice obtained prior to use?			
Estimate quantity of oil treated:			
Comments on effectiveness of treatment:			
Other relevant observations / comments on use:			
Name and contact details for person reporting use:			
Date and time report was completed:			



## 9 Training and Exercise Programme

This section describes the training and exercise program to ensure personnel with responsibilities during an oil pollution incident are competent, and that the Spill Response Contractor is always fully operational and ready.

A record of all exercises undertaken by Principal Contractors and their Contractors and Subcontractors will be maintained at the location where the exercise was conducted i.e. either offshore or onshore. Records will contain details of: the exercise scenario, aims and objectives, action plan checklist completed, POLREP form, timeline of the exercise, lessons learnt / recommendations and actions. It is an expectation that **the guidance and materials provided in this document are used during the drills**, i.e. release estimation guide, appearance guide, etc. and that these exercises are different to the regular SOPEP drills conducted offshore (where the spill is contained onboard). Records will be retained onboard until the end of the project and be available upon request by ICOL.

Any strengthening identified during exercises will be communicated to ICOL who will decide whether to include it in this MPCP during the next review process.

Personnel	Training
Vessel Masters	Oil Spill Awareness Response for Offshore Vessel Crews or equivalent
Principal Contractor Construction Manager / Operations Manager	
Personnel	Exercises
Contractor Vessel personnel	<ul> <li>MPCP drills and exercises shall be conducted by all Principal Contractors to ensure all relevant responsible personnel are familiar with the MPCP, can use the Action Plan Checklist and supporting guidance and understand their roles and responsibilities in a pollution event.</li> <li>A full MPCP drill shall be conducted by each Principal Contractor every 6 months and prior to conduct offshore bunkering operations.</li> <li>These exercises are over and above the periodic SOPEP drills conducted onboard the vessels.</li> </ul>



## **Inch Cape Acceptance**

Originator	Reviewed by	Accepted by	Accepted by
Susana Gonzalez	Gavin Kelly	Stuart McCallum	Keith Thomson
Signature	Signature	Signature	Signature
Environmental Lead	Offshore Consents Manager	Environmental Clerk of Works	Head of Consents

## **Revision History (previous five)**

Date	Rev.	Purpose of Issue	Description of revision	Initials
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04/09/2024	1	Issue for Approval	Address of consultation comments	DD

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Template Revision: 0

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## **Consent Plan Overview**

## **Purpose and Objectives of the Plan**

This Construction Environmental Management Plan (CEMP) has been prepared to address the specific requirements of the relevant conditions attached to the following consent documents (collectively referred to as 'the consents'):

- Section 36 Consent (dated 14<sup>th</sup> June 2023), Generating Station Marine Licence (MS-00010140 dated 15<sup>th</sup> June 2023).
- Offshore Transmission Infrastructure (OfTI) Marine Licence (MS-00010593 dated 9<sup>th</sup> November 2023) and,
- Additional Works Marine Licence (MS-00010672 dated 15th January 2024).

The consents have been issued to Inch Cape Wind Offshore Limited (hereafter referred to as 'ICOL' or Inch Cape), for the construction, operation and decommissioning of the Inch Cape Offshore Wind Farm (OWF) and Offshore Transmission Infrastructure (OfTI), (hereafter referred to as 'the Development').

This Offshore CEMP has been prepared to discharge consent conditions for both the Generating Station and OfTI simultaneously.

The overall aims and objectives of this Offshore CEMP are to detail to those involved in the construction of the Inch Cape Project, the series of measures and requirements / obligations that need to be implemented to manage environmental aspects of the project, based on commitments made by Inch Cape and the requirements of the consent conditions. All Inch Cape Contractors involved in the Inch Cape Project are required to comply with this CEMP through conditions of contract.

This document is applicable to the construction phase of the project, i.e. all construction and commissioning activities to be undertaken up to the Final Commissioning of the Development.

The environmental management for the operational lifespan of the Development from the Final Commissioning of the Development until the cessation of electricity generation is not included in this document but rather as a separate Operations and Maintenance Environmental Management Plan (OEMP) (IC02-INT-EC-OFC-010-INC-PLA-001) that will be in place until the Decommissioning of the Development. The OEMP will be submitted for approval to the Scottish Ministers once Construction is well under way, no later than 3 months prior to the commissioning of the first wind turbine generator (WTG), to ensure it is fit for purpose and captures best industry practice and latest available techniques for monitoring environmental management.

Environmental management during decommissioning is addressed by the Inch Cape Decommissioning Programme (IC02-INT-EC-OFC-003-INC-PLA-001).

This CEMP is a live document that will be reviewed regularly and updated as required. Information within this



document is accurate at the time of submission but it is recognised that changes or updates may be required to reflect changes following consultation, changes in best practice, lessons learned, etc, prior to the end of the Construction phase of the Development. The process by which this CEMP will be reviewed is presented in section 1.5.

## Scope of the Plan

This document has been produced in line with the requirements of the consent conditions, industry standards, and best practices. This CEMP conveys information on the following:

- Roles and responsibilities for key development personnel and contractors in respect of environmental management for the protection of environmental interests during the construction of the Works.
- Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring data.
- Pollution prevention and control procedures, including contingency plans.
- Management measures to prevent the introduction of non-native marine species.
- Communication mechanisms for reporting environmental issues and compliance with the CEMP to the Scottish Ministers/Licencing Authority.
- A waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment.
- Environmental incident and non-compliance reporting, including dropped objects.
- Marine archaeology, UXO (Unexploded Ordnance) and other marine users.

### **Plan Structure**

The CEMP has been structured as follows:

- Section 1 provides an overview of the Project and the licence requirements that underpin the
  content of this CEMP. It also sets out the linkages with other Consent Plans and the process
  for making updates and amendments.
- Section 2 specifies the overarching Environmental Management Framework, including details
  on roles and responsibilities. This section also includes Inch Cape's approach to reporting,
  communications, training and awareness, and Environmental Clerk of Works compliance
  monitoring.



- Sections 3 presents a series of measures to manage environmental aspects and the requirements of the licence conditions. This section also sets out measures to manage specific issues identified within the licence conditions, including but not limited to marine pollution, chemical usage, marine Invasive Non-Native Species (INNS), waste, etc.
- Section 4 stipulates key mitigation and management measures for any effects on the natural environment caused by the Development, including commitments made in the Environmental Impact Assessment Report (EIAR);
- Section 5 Lists the references made within this CEMP.

The accompanying Appendices present the following: Contractor Deliverable List, Incident Reporting processes, ECoW Non-compliance Report Template, ECoW Monthly Compliance Report Template and ICOL Marine Pollution Contingency Plan (MPCP).

### Plan Audience

The CEMP is intended to be referred to by personnel involved in the construction of the Inch Cape Project. This includes all ICOL personnel, and Contractors notwithstanding their duties under the Construction (Design and Management) Regulations (CDM Regulations). All method statements, project installation manuals and environmental management documents produced by ICOL and Contractors in relation to the Development must align, reflect and comply with this CEMP.

Compliance with the CEMP will be monitored by ICOL's Environmental Clerk of Works (ECoW), ICOL's Environment Lead, ICOL appointed Contractors and Marine Directorate Licencing Operations Team (MD-LOT).

## **Plan Locations**

Copies of this CEMP (and the consents) will be available at the following locations:

- ICOL's Project Office, 5<sup>th</sup> Floor, 40 Princes Street, Edinburgh, EH2 2BY;
- ICOL's Marine Coordination Centre
- The premises of any Contractors undertaking work on behalf of ICOL.
- ICOL's Environmental Clerk of Works (ECoW); and
- Aboard any vessels carrying out construction activities for the Development.



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Acronym	Term
AIS	Automatic Identification System
AFS	Anti-Fouling System
ALARP	As Low As Reasonably Possible
CaP	Cable Plan
CEA	Construction Environmental Advisor
CEMP	Construction Environmental Management Plan
CERT	Contractor Emergency Response Team
CDM	Construction (Design and Management) Regulations 2015
CFWG	Commercial Fisheries Working Group
CGOC	Coastguard Operations Centre
CMS	Construction Method Statement
COLREGS	International Regulations for Preventing Collisions at Sea 1972
COSHH	Control Of Substances Hazardous to Health
CPS Branch	Counter Pollution and Salvage Branch of the MCA
DP	Decommissioning Plan
ECoW	Environmental Clerk of Works
EEZ	Exclusive Economic Zone
EIAR	Environmental Impact Assessment Report



Acronym	Term
EPS	European Protected Species
ERCoP	Emergency Response Co-operation Plan
ETA	Estimated Time of Arrival
FLO	Fisheries Liaison Officer
FMS	Fisheries Management Scotland
FMMS	Fisheries Management and Mitigation Strategy
FTRAG	Forth and Tay Regional Advisory Group
HIRA	Hazard Identification and Risk Assessment
HAZID	Hazard Identification
HSE	Health and Safety and Environment
Hz	Hertz
IALA	The International Association of Marine Aids to Navigation and Lighthouse
ICOL	Inch Cape Offshore Limited.
	ICOL and Inch Cape are interchangeable and used throughout in this document.
IFO	Intermediate Fuel Oil
IMO	International Maritime Organisation
INNS	Invasive Non-Native Species
ITOPF	International Tank Owners Pollution Federation



Acronym	Term
ISM	International Safety Management
JNCC	Joint Nature Conservation Committee
kHz	Kilohertz
km	Kilometre
kV	Kilovolts
LMP	Lighting and Marking Plan
m	Metre
MARPOL	International Convention for the Prevention of Pollution from Ships
MCA	Maritime and Coastguard Agency
MCC	Marine Co-ordination Centre
MEHRA	Marine Environmental High-Risk Areas
MEPC Act	Marine Environmental Protection Committee Act
MGO	Marine Gas Oil
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
ML	Marine Licence
ММО	Marine Mammal Observer
MPCP	Marine Pollution Contingency Plan



Acronym	Term
MRC	Marine Response Centre
MD-LOT	Marine Directorate Licensing Operations Team
MW	Megawatt
NCP	National Contingency Plan
NLB	Northern Lighthouse Board
NtM	Notice to Mariners
OCNS	Offshore Chemical Notification Scheme
OCU	Operations Control Unit
OfTW	Offshore Transmission Works
OSC	On-Scene Commander
OSCP	Oil Spill Contingency Plan
OSP	Offshore Substation Platform
OSPAR	The Convention for the Protection of the marine environment of the North-East
PAD	Protocol for Archaeological Discoveries
PEMP	Project Environmental Monitoring Programme
POB	Personnel On Board
PS	Piling Strategy
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations



Acronym	Term
ROV	Remoted Operated Vehicle
RSPB	Royal Society for the Protection of Birds
SAR	Search and Rescue
S36	Section 36
SAC	Special Area of Conservation
SCU	Salvage Control Unit
SEG	Scottish Standing Environment Group
SEPA	Scottish Environment Protection Agency
SMWWC	Scottish Marine Wildlife Watching Code
SNH	Scottish Natural Heritage
SOPEP	Ship Oil Pollution Emergency Plan
SOSREP	Secretary of State's Representative for Maritime Salvage and Intervention
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STAC	Scientific and Technical Advisory Committee
STC	Strategic Coordinating Group
SWCN	Special Waste Consignment Note
TAR	Transportation Audit Report



Acronym	Term
TCG	Tactical Coordinating Group
UK	United Kingdom
UKHO	UK Hydrographic Office
UK PCZ	UK Pollution Control Zone
UXO	Unexploded Ordnance
VMNSP	Vessel Management and Navigation Safety Plan
WDC	Whale and Dolphin Conservation
WSI	Written Scheme of Investigation
WTN	Waste Transfer Note
WTG	Wind Turbine Generator

Defined Term		Meaning
Audit		Inspection to confirm compliance and identify and correct non-compliances
Contractor Subcontractor)	(and	As defined by the Construction (Design and Management) Regulations 2015.  Please note that in many sections of this document the word Contractor is used in a generic way to refer to all types of Contractors.



Defined Term	Meaning
Development	Refers to the wind turbine generators (WTGs), inter-array cables, Offshore Substation Platform (OSP) and the Offshore Export Cable and any other associated works.
Development Area	The area which comprises the Offshore Wind Farm, all WTGs, inter-array cables, Offshore Substation Platform (OSP) and the beginning of the Offshore Export Cables.
	Throughout this document, the OWF and the OfTI (OSP and Export Cables) are also collectively referred to as the Inch Cape Project
Final Commissioning of the Development	Commissioning is the final stage of the construction process. Construction and commissioning activities will happen simultaneously across the project until the final turbine is installed. For the context of this document, an asset is considered commissioned once it has been energised, the specific test runs have been completed and the control passes to the O&M Team.
Forth Ports	Port authority that operates the local ports in the Firth of Forth.
Landfall	Point where up to two Offshore Export Cables from Inch Cape Offshore Wind Farm will be brought ashore.
Non- Compliance	Refers to a non-compliance (non-fulfilment of a requirement) with "the consents" of the Inch Cape project and the following: An ICOL Offshore Consent Plan, the Contractor EMP, Contractor procedure and Environmental and/or Maritime Legislation.



Defined Term	Meaning
Onshore Transmission Works (OnTW)	Includes the Onshore Substation (electrical equipment only), Landfall, underground electricity transmission cables connecting to the Onshore Substation, fibre-optic and communication cables and further underground cables required to facilitate connection to the national grid. This includes all permanent and temporary works required and all landscaping and visual mitigation.
Inch Cape Offshore Transmission Works / Offshore Transmission Infrastructure (OfTW / OfTI)	A component of the Development, comprising OSP and its foundations and substructures, and Offshore Export Cables.  Also referred to as Offshore Transmission Infrastructure throughout this document.
Inch Cape Offshore Wind Farm	A component of the Development, comprising wind turbines and their foundations and substructures, and inter-array cables.
Offshore Export Cable Corridor/	The area within which the Offshore Export Cables will be laid outside the Development Area and up to Mean High Water Springs.
Offshore Substation Platform (OSP)	The platform structure offshore that contain High Voltage or Extra High Voltage switching equipment, including transformers, switchgear and other electrical components required to control power system switching.
Offshore Export Cable	The subsea, buried or protected electricity cables running from the OSP to the landfall and transmitting the electricity generated to the onshore cables for transmission onwards to the onshore substation and the electrical grid connection.



Defined Term	Meaning
Principal Contractor	As defined by the Construction (Design and Management) Regulations 2015.  Please note that in many sections of this document the word Contractor is used in a generic way to refer to all types of Contractors.
The Wind Farm	The Inch Cape Offshore Wind Farm
(The) consents	Collective term used to describe the Section 36 consents and Marine Licences issued to ICOL.
2013 Environmental Statement (ES)	Refers to the document in which the Environmental Impact Assessment (EIA) was carried for the Inch Cape 2014 Consent.
2018 Environmental Impact Assessment (EIA) Report (EIAR)	Refers to the document produced in 2018 to accompany the application for Consent of the Development (granted in 2019) following a material change in design.



### 1 Introduction

#### 1.1 Consent and Licences

The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Infrastructure (OfTI), hereafter referred to as the Development, is being developed by Inch Cape Offshore Limited (ICOL).

ICOL originally applied for consent for the Development in 2013, and this was updated, and a revised application submitted in 2018. Section 36 and Marine Licence consents for the revised design, were granted by Scottish Ministers in 2019. Since then, ICOL has successfully sought two variations to the Section 36 and Generation Station Marine Licence to optimise wind farm efficiency and both were granted consent in June 2023 (Section 36 Variation dated 14 June 2023 and Generation Marine Licence Variation MS-00010140 dated 15 June 2023).

The Section 36 Consent, Generating Station (GS) Marine Licence, and OfTI Marine Licence for the revised design were granted by Scottish Ministers on 17<sup>th</sup> June 2019. The Section 36 Consent was subsequently varied on 16<sup>th</sup> July 2020, 22<sup>nd</sup> July 2021, and 14<sup>th</sup> June 2021, the GS Marine Licence was varied on 14<sup>th</sup> June 2023 (Licence No. MS-00010140); and the OfTI Marine Licence varied on 23<sup>rd</sup> August and amended on 9<sup>th</sup> November 2023 (Licence No. MS-00010593).

Two separate Marine Licences were granted for additional works at the landfall. These licences concern the Additional Landfall Works to facilitate the construction of the export cables through the seawall (Licence No. MS-00010672 issued on 15th January 2024), and the potential installation of a temporary Cofferdam to support the works (Licence No. MS-00010690 issued on 23rd May 2024).

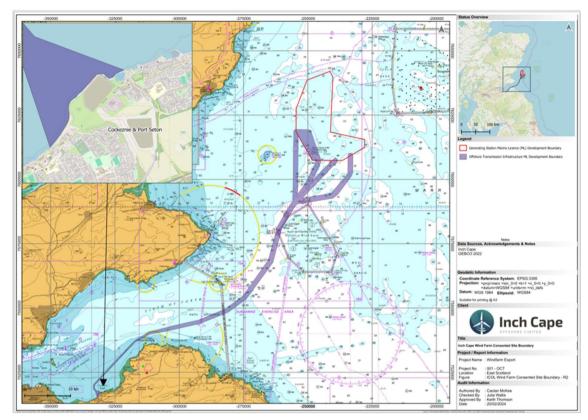
The Onshore Transmission Infrastructure was subject to a separate planning application under the Town and Country Planning (Scotland) Act. 1997. This was awarded in principle by East Lothian Councill in 2019 and extended in 2022 following reapplication by Inch Cape.

### 1.2 Project Description

The Development will be located approximately 15 to 22 kilometres (km) (8 to 12 nautical miles (nm)) off the Angus coastline, to the east of the Firth of Tay. The site of The Development (Development Area) is approximately 150 square kilometres (km²) and will contain 72 WTGs, one OSP, 132 kilovolts (kV) interarray cabling and the initial section of the export cable between the Development Area boundary and OSP.

The Offshore Export Cable Corridor will contain the offshore export cables. The Offshore Export Cable Corridor will consist of two 220 kV export cables approximately 83 km, between the landfall point at Cockenzie in East Lothian and the boundary of the Development Area, and 1.4 km across at the widest point, reducing to approximately 250 metres (m) at the landfall.





The location and extent of the Development Area and Offshore Cable Corridor is shown in Figure 1.0.

Figure 1.0 Project Location

### 1.2.1 Construction

Offshore construction activities will be managed from a port facility yet to be determined.

The location of marshalling ports for substructures, piles and WTG components has not yet been determined and will depend on the transport and installation concept adopted by the different Contractors. WTGs will be installed from a suitable vessel able to lift and install the components in the water depth and soil conditions of the offshore site. Other operations including piling, installation of substructures and substation topsides will be done from floating vessels which maintain position using dynamic positioning systems.

Cable burial methodologies and tools to be used for both the inter array cables within the OWF and the two export cables are still to be defined and will be selected considering the existing ground conditions. The export cables cross a sea defence wall at landfall for which the final methodology is still to be determined.



The testing and commissioning of the different assets (WTG, cables, OSP) will be completed following their respective construction installation tasks and will be followed upon completion by over to the Operations and Maintenance Team.

### 1.2.2 Environmental Protected Areas

The windfarm and the offshore export corridor are in the vicinity of a different range of protected areas with different National and International Designations.

The following are the most representative:

- <u>Special Protection Areas (SPAs):</u> designated for supporting seabirds and seabirds' populations of European importance and or Annex 1 species of the Birds Directive.
- Special Areas of Conservation (SACs): designated for Annex 1 habitats and Annex 2 species
  of the Habitats Directive.
- Ramsar Sites: Created to protect wetlands habitats and are also designated as SPAs or SACs.
- <u>Sites of Special Scientific Interest (SSSI):</u> Designated for terrestrial and intertidal wildlife amongst other features.
- Scottish Marine Protected Areas: The Firth of Forth Bank Complex MPA is north of the development. Its designation is the offshore subtidal sands and gravels, ocean quahog (*Artica islandica*), shelf banks and mounds.

Details of the different protected areas can be found in section 4.6 of Appendix E (Inch Cape Marine Pollution Contingency Plan).

## 1.3 Consent and Licence Requirements

At the time of submission of this plan the Inch Cape project benefits from the following consents:

- The S36 Consent
- The Generation Marine Licence
- The OfTI (Offshore Transmission Infrastructure Marine Licence)
- The Additional Landfall Works Marine Licence
- Forth Ports Marine Works Licence (Landfall Works)



This Offshore Construction Environmental Management Plan (Offshore CEMP) has been prepared to satisfy the criteria of the S36 condition 14, OfTI Marine Licence condition 3.2.2.10 and Generation Marine Licence condition 3.2.2.11 as set out in Table 1.1. Table 1.2 contains additional conditions from the above list that are also intended to be discharged by this CEMP.

Additional licences may be required for specific works (e.g. Cofferdam Marine Licence, EPS Licence, etc.) however they are not included and referred to in the current version of this document.

A separate Operations and Maintenance EMP will be provided closer to Final Commissioning of the Inch Cape Project.



Table 1.1 Consent Conditions to be discharged by this Offshore CEMP.

	1		
Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
Section 36	Condition 14	The Company must, no later than six months prior to the Commencement of the Development, submit an Environmental Management Plan ("EMP"), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, Royal Society for the Protection of Birds Scotland ("RSPB Scotland"), WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers.	This document sets out the Offshore CEMP for approval by the Scottish Ministers.
	Condition 14	The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a. All construction as required to be undertaken before the Final Commissioning of the Works; and  b. the Development until the cessation of electricity generation (environmental management during decommissioning is addressed by the Decommissioning Program provided for by condition 3).	This Offshore CEMP, for approval by the Scottish Ministers, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
		The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3
	Condition 14	The EMP must set out the roles, responsibilities and chain of command for the Company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Development.	Section 2.3
	Condition 14	It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a. Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 10);	Mitigation measures set out in Section 3 and 4
Section 36		A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
	Condition 14	Management measures to prevent the introduction of invasive non-native marine species;	Section 3.11



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
		d. A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	Section 3.14
		e. The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
		The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
		The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2
MS-00010140 Marine Licence Generating Station	Condition 3.2.2.11	The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with SNH, RSPB Scotland, WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.	This document sets out the Offshore CEMP for approval by the Licensing Authority.
		The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a. All construction as required to be undertaken before the Final Commissioning of the Works; and  b. The operational lifespan of the Works from the Final Commissioning of the Works until the cessation of electricity generation	This Offshore CEMP, for approval by the Marine Directorate, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
		The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
MS-00010140	Condition 3.2.2.11	The EMP must set out the roles, responsibilities and chain of command for the company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works.	Section 2.3
Marine Licence Generating Station	It must address, but not be lim requirements for environmental m  a) Mitigation measures to to environmental intere and pre-consent and procollection, and include	It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 3.2.2.7);	Mitigation measures set out in Section 3 and 4
		b) A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
		<ul> <li>c) Management measures to prevent the introduction of invasive non-native marine species;</li> </ul>	Section 3.11
	Condition	d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	Section 3.14
	3.2.2.11	e) The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
MS-00010140 Marine	Condition	The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
Licence Generating Station	3.2.2.11	The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
	Condition 3.2.2.10	The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with SNH, RSPB Scotland, WDC, FMS and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.	This document sets out the Offshore CEMP for approval by the Licensing Authority.
MS-00010593 Marine Licence Offshore		The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:  a) All construction as required to be undertaken before the Final Commissioning of the Works; and  b) The operational lifespan of the Works from the Final Commissioning of the Works until the cessation of electricity generation	This Offshore CEMP, for approval by the Marine Directorate, addresses the construction phase.  A separate operation and maintenance EMP will be prepared to cover the operational lifespan of the project.
Transmission Infrastructure	Condition	The EMP must be in accordance with the Application insofar as it relates to environmental management measures.	Section 3
	3.2.2.10	The EMP must set out the roles, responsibilities and chain of command for the company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works.	Section 2.3
		It must address, but not be limited to, the following over-arching requirements for environmental management during construction:  a) Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include reference to relevant parts of the CMS (refer to condition 3.2.2.6);	Mitigation measures set out in Section 3 and 4
MS-00010593 Marine		b) A pollution prevention and control method statement, including contingency plans;	Section 3.6 and MPCP
Licence Offshore	Condition 3.2.2.10	<ul> <li>c) Management measures to prevent the introduction of invasive non-native marine species;</li> </ul>	Section 3.11
Transmission Infrastructure		d) A site waste management plan (dealing with all aspects of waste produced during the construction period), including	Section 3.14



Condition Document	Condition Reference	Condition text	Relevant Section of this CEMP
		details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and	
		e) The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.	Section 2.4
	Condition 3.2.2.10	The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.	Section 1.5
	3.2.2.10	The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and a PEMP.	Section 3.2



In addition to the specific consent requirements for the development of a CEMP, as set out in Table 1.1, this CEMP also includes information to discharge a number of other licence conditions related to environmental management. These are set out in Table 1.2

Table 1.2 Other Consent conditions to be discharged by this Offshore CEMP.

Condition Reference	Condition Text	Section of this CEMP
Incident Reporting (S36 Condition 6, MLs Condition 3.2.1.1 and Additional Landfall ML Condition 3.1.7)	In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent, the Company must provide written notification of the nature and timing of the incident to the Scottish Ministers within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Scottish Ministers within a period of time to be agreed by the Scottish Ministers.  In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this Licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Licensing Authority within a period of time to be agreed by the Licensing Authority.	Section 2.5
Implementation in accordance with approved plans and requirements of this consent (S36 Condition 7)	Except as otherwise required by the terms of this consent, the Development must be constructed and operated in accordance with the Application (taking into account amendments or updates made by the 2022 Variation Application), supporting documentation, including the Environmental Impact Assessment Report ("EIA Report") submitted by the Company on 15 August 2018, related documents lodged in support of the Application, and the 2022 Variation Application submitted by the Company on 22 November 2022.	Section 3
Compliance with the Application and approved plans (MLs Condition 3.1.1 and Additional Landfall ML 3.1.1)	The Licensee must at all times construct, operate and maintain the Works in accordance with this licence, the Application and the plans and programmes approved by the Licensing Authority.  The Licensee must only construct the Works in accordance with this licence, the application and any plans or programmes approved by the Licensing Authority unless otherwise authorised by the Licensing Authority.	Section 3



Condition Reference	Condition Text	Section of this CEMP
Transportation for site inspections (S36 Condition 8)	As far as reasonably practicable, the Company must, on being given reasonable notice by the Scottish Ministers (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Scottish Ministers to inspect the Site.	Section 4.3
Inspection of the Works (MLs Condition 3.1.12)	Any persons authorised by the Licensing Authority must be permitted to inspect the Works. As far as reasonably practicable, Licensee must, on being given reasonable notice by the Licensing Authority (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Licensing Authority to inspect the Works. The licensee shall ensure that the Works are maintained at all times in good repair.	Section 4.1 and 4.3
Inspection of the Works. (Additional Landfall ML Condition 3.3.8)	Any person authorised by the Licensing Authority must be permitted to inspect the site at any reasonable time	Section 4.3
Force Majeure (MLs Condition 3.1.4)	Should the Licensee or any of its agents, contractors or sub-contractors, by any reason of force majeure deposit anywhere in the marine environment any substance or object, then the Licensee must notify the Licensing Authority of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed). Force majeure may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the OSPAR Convention, the Licensing Authority is obliged to immediately report force majeure incidents to the OSPAR Commission.	Section 2.5
Chemical usage (MLs Condition 3.1.8)	The Licensee must seek prior written approval from the Licensing Authority for any chemicals in an open system which are to be utilised in the construction, operation and maintenance of the Works. Requests for approval must be submitted in writing to the Licensing Authority no later than one month prior to its intended use or such other period as agreed by the Licensing Authority. The Licensee must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority. If the proposed chemical is on the OCNS list, the approval request must include the chemical name, volume or quantity to be used, the OCNS list, the approval request must include details of chemical to be used, including safety data sheet, depth and current at the Site, quantities or	Section 3.8



Condition Reference	Condition Text	Section of this CEMP
	volumes and the proposed frequency of use. The Licensee must notify the Licensing Authority of the types of chemicals to be used in a closed containment system prior to use. The Licensee should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported to the Licensing Authority as soon as practicable.	
Fluorinated greenhouse gases (MLs Condition 3.1.9)	The Licensee must ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases ("F-Gas Regulation") or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases. The Licensee must take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases. Where leakage of fluorinated greenhouse gases is detected, the Licensee must ensure that the equipment is repaired without undue delay. The Licensee must ensure that all equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO2 equivalent or more and not contained in foams is checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Licensing Authority annually and immediately in the event of discovery of leakage. Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Licensee must ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Licensing Authority must be informed of the date of discovery, date of repair and date of inspection.	Section 3.17
Environmental Protection (MLs	The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to minimise damage to the Scottish marine area caused as a result of the undertaking of the Licenced Activities. The Licensee must ensure that all personnel adhere to the SMWWC where appropriate during all construction, operation and maintenance activities authorised under this licence.  The Licensee must ensure that any debris or waste material placed below MHWS level during the	Sections 3.13 & 3.2
Condition 3.1.10)	construction of the Works is removed from the Site, unless agreed otherwise by the Licensing Authority, as soon as is reasonably practicable, for disposal at a location above the MHWS level approved by SEPA or such other relevant authority if disposal is to take place out with Scotland.	Section 3.14
	The Licensee must ensure that, where practicable, all substances and objects deposited during the	Section 3.13 &



Condition Reference	Condition Text	Section of this CEMP
	Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.	3.16
	The Licensee must ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented during the construction, operation and maintenance of the Works.	Section 3.11
	The Licensee must ensure that if oil based drilling muds are utilised they must be contained within a zero discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the Site need not be removed from the seabed.	Section 3.12
	All materials used during the execution of the Licenced Activity must be inert and must not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.	Section 3.13
Environmental Protection (Additional Landfall ML Condition 3.1.5,	The Licensee must remove the materials from below the level of Mean High-Water Springs, or make such alterations as advised by the Licensing Authority, within one month of notice being given by the Licensing Authority at any time it is considered necessary or advisable for the safety of navigation, and not replaced without further approval by the Licensing Authority. The Licensee shall be liable for any expense incurred.	Section 3.16
3.1.10, 3.3.2 and 3.3.7)	The Licensee must ensure that any debris or waste materials arising during the course of the Licenced Activity are removed for disposal at an approved location above the tidal level of Mean High-Water Springs.	Section 3.14
	The Licensee must ensure appropriate steps are taken to minimise damage to the beach and foreshore by the Licenced Activity.	Section 3.13
Bunding and storage facilities (MLs Condition 3.2.1.2)	The Licensee must ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works and associated equipment into the marine environment.	Section 3.10
Marine Mammals	Prior to the Commencement of the Works, the Licensee must appoint an MMO. When appointed, the MMO must, as a minimum, maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy	Section 3.2.2



Condition Reference	Condition Text	Section of this CEMP
3.2.2.3 and 3.2.2.2)	activities. The Licensee must provide the Licensing Authority with the MMO records no later than six months following Commencement of the Works, and thenceforth at such other periods as agreed with the Licensing Authority.	
Noise Registry (MLs, Condition 3.2.2.4 and 3.2.2.3)	The Licensee must complete and submit a proposed activity form in the online Noise Registry for all aspects of the Works that will produce loud, low to medium frequency (10 Hz-10 kHz) impulsive noise no later than seven days prior to Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, the Licensee must complete and submit a new proposed activity form no later than seven days prior to Commencement of the Works.	Section 3.2.1
	Prior to the Commencement of the Works, the Licensee must, at its own expense, and with the approval of the Licensing Authority in consultation with SNH, appoint an independent ECoW. The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this licence to the Licensing Authority, in sufficient time for any preconstruction monitoring requirements, and remain in post until agreed by the Licensing Authority. The terms of appointment must also be approved by the Licensing Authority in consultation with SNH. The terms of the appointment must include, but not be limited to:  a. Quality assurance of final draft versions of all plans and programmes required under this licence;	
Environmental Clerk of Works (S36 Condition 27, MLs Condition 3.2.2.24, 3.2.2.21)	<ul> <li>b. Responsible for the monitoring and reporting of compliance with the licence conditions and the environmental mitigation measures for the Works authorised by this licence;</li> <li>c. Provision of on-going advice and guidance to the Licensee in relation to achieving compliance with licence conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP;</li> <li>d. Provision of reports on point b &amp; c above to the Licensing Authority at timescales to be determined by the Licensing Authority;</li> <li>e. Induction and toolbox talks to onsite construction teams on environmental policy and procedures, Including temporary stops and keeping a record of these;</li> <li>f. Monitoring that the Works are being constructed in accordance with the plans and this licence, the Application and in compliance with all relevant regulations and legislation;</li> </ul>	Section 2.3.10



Condition Reference	Condition Text	Section of this CEMP
	as a result to the Licensing Authority; and  h. Agreement of a communication strategy with the Licensing Authority.	
Fisheries Liaison Officer (S36 Condition 28, MLs Condition 3.2.2.25 and 3.2.2.22)	Prior to the Commencement of the Works, an FLO, must be appointed by the Licensee and approved, in writing, by the Licensing Authority (following consultation with SFF and the FTCFWG). The FLO must be appointed by the Licensee for the period from Commencement of the Works until the Final Commissioning of the Works. The identity and credentials of the FLO must be included in the EMP (referred to in condition 3.2.2.10). The FLO must establish and maintain effective communications between the Licensee, any contractors or sub-contractors, fishermen and other users of the sea during the construction of the Works and ensure compliance with best practice guidelines whilst doing so. The responsibilities of the FLO must include, but not be limited to: a. Establishing and maintaining effective communications between the Licensee, any contractors or sub-contractors, fishermen and other users of the sea concerning the overall Works and any amendments to the CMS and site environmental procedures; b. The provision of information relating to the safe operation of fishing activity on the site of the Works; and c. Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.	Section 2.3.11
Transportation Audit Report (ML Condition 3.2.3.1)	The Licensee must submit to the Licensing Authority a detailed TAR for each calendar month during the construction phase of the Works. The TAR must be submitted within 14 days of the end of each calendar month.  The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of this licence) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.  If the Licensee becomes aware of any substances, objects or materials on the TAR that are missing, or becomes aware that an accidental deposit has occurred, the Licensee must notify the Licensing Authority as soon as practicable. The Licensee must undertake such survey as directed by the Licensing Authority to locate the substances, objects and materials. If the Licensing Authority is of the view that any accidental deposits have occurred and should be removed, then the materials must be removed by the Licensee as soon as is practicable and at the Licensee's expense.	Section 3.16
Materials used during the works.	The Licensee must submit a written report regarding the materials used during the works to the Licensing Authority. The written report must be submitted on completion of the works and on the forms provided by the Licensing Authority no later than 31 October 2029.	Section 3.16



Condition Reference	Condition Text	Section of this CEMP
Landfall ML Condition 3.4.1 and 3.3.3)	The Licensee shall ensure that prior to the expiry of the licence, the works must be altered by taking all temporary structures to a place above Mean High Water Springs.	Section 3.16
Copies of the Licence (Additional Landfall ML Condition 3.3.5)	The Licensee must ensure that a copy of the licence is given to each contractor and sub-contractor employed to undertake the Licenced Activity.	Section Plan Locations
Plant, equipment and spills to sea (Forth Ports ML Condition 1.1)	Should any plant be unable to be recovered from the water or should there be any loss of equipment or pollution into the water it should be reported to FTNS immediately on 01324 498584 or by VHF channel 71.	Section 2.5
RAMS (Forth Ports ML Condition 1.3)	The Licensee shall, prior to commencement of each stage of the works, provide Forth Ports with a Method Statement and Risk Assessment for any works, for Forth Ports' prior approval. Any reasonable requirements of the Forth Ports Harbor Master should be addressed in advance of any such works being undertaken.	Section 2.2.1
	Forth Ports and its duly authorised officers shall have the right to:-  - inspect the works and all plans and specifications in connection therewith, prior to commencement of the works and at all reasonable times thereafter.	Section 4.3
Forth Ports ML Conditions 12.1, 12.2 and 12.3.	<ul> <li>require modification, addition or alteration to the works, if in their opinion such action is necessary; and</li> <li>receive a copy (in human readable form) of all results from all investigations, soil tests, bores, seismic surveys, etc., involved in the works.</li> </ul>	Section 3.16
		Section 2.2.1
Environmental Protection (Forth Ports ML Condition 17.5 and 17.6)	In the event of environmental pollution occurring such as to cause a nuisance, whether on land or ashore or in the sea in connection with operations on, in, about or in connection with the works, carry out or make arrangements for carrying out of all measures considered to be reasonably necessary in the opinion of Forth Ports for the clearance and removal of any such pollution and the Licensee shall ensure that any damage caused as a result thereof is made good and if, after due notice, the Licensee	Section 2.2.1



Condition Reference	Condition Text	Section of this CEMP
	fails to take the required measures, Forth Ports may carry out the required measures and shall have the power to recover the costs thereof directly from the Licensee.	
	On completion of the works, ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.	Section 2.2.1



# 1.4 Linkages with other Consent Plans and Consent Conditions

The CEMP will be consistent with a number of other consent plans and consent conditions. Details of the linkages and relevant cross references are set out in table 1.3.

It should be noted that information is not repeated across consent plans, rather, where pertinent information is available in linked consent plans, the relevant consent plans are referred to. The plans are not required for approval of the CEMP but are provided for ease of reference.

Table 1-3 CEMP links with Other Consent Plans and documents

Reference	Description and relevance to the CEMP	Crossed Referenced in this Offshore CEMP
ConstructionMethodStatement (S36 Condition10, MLs Condition3.2.2.7and 3.2.2.6)	Details the construction methods, setting out good practice construction measures and how mitigation measures proposed in the EIAR are being implemented during construction	Section 2.2
Fisheries Management and Mitigation Strategy (S36 Condition 26, MLs Condition 3.2.2.23 and 3.2.2.20)	Sets out the mitigation strategy relating to the commercial fishing industry in order to minimise or avoid effects on fishing vessels and activities	Section 3.15
Protocol for Archaeological Discoveries (S36 Condition 29 and MLs Condition 3.2.2.26 and 3.2.2.23)	Sets out the reporting protocol in the event of marine archaeological discoveries being made prior to, during or following construction	Section 3.3
Cable Plan (S36 Condition 19 and ML Condition 3.2.1.16 and 3.2.2.15)	Contains details on environmental sensitivities and design considerations to mitigate, as far as possible, the effects of cable laying and associated cable protection during installation and operation of the Development	Section 3.13
Operation and	Sets out the procedures and good working practices for operations and the	Not considered in this CEMP



Reference	Description and relevance to the CEMP	Crossed Referenced in this Offshore CEMP
Maintenance Programme (S36 Condition 16, MLs Condition 3.2.2.13 and 3.2.2.12)	maintenance of the WTG's, substructures, and inter-array cable network of the Development considering sensitive environmental periods.	as this document only applies to the construction phase.
Project Environmental Monitoring Programme (S36 Condition 24 MLs Condition 3.2.2.21 and 3.2.2.18)	Sets out measures by which Inch Cape will monitor the environmental impacts of the OWF.  Inch Cape environmental management, mitigation and monitoring commitments have taken account of the results and any recommendations of pre-construction monitoring and will continue to be refined depending on the results of the ongoing program of construction and monitoring described in the PEMP.	Section 3.2
Piling Strategy (S36 Condition 11, ML Condition 3.2.2.8 and 3.2.2.7)	Piling methods and programme are detailed and include the mitigation of the effects on noise sensitive species.	Section 3.2
Vessel Management Plan (S36 Condition 15 MLs Condition 3.2.2.12 and 3.2.2.11)	Combined with the Navigational safety Plan, the VMNSP, provides the management and coordination of vessels to mitigate the impacts on other sea users.	Section 3.2 & 3.5



### 1.5 CEMP Management of Change Process

This CEMP is a live document and will be regularly revised at intervals agreed with Scottish Ministers, to ensure that the information is kept up to date. It is expected that following a review, there may be a requirement to undertake a non-material or material update of the document.

It is anticipated that a material change would be defined as one that fundamentally affects key information being communicated in the CEMP; a change in proposed mitigation or monitoring commitments; or a change that may increase environmental risk. A non-material change would be expected to be one that is communicated for information only; does not fundamentally affect assumptions made based on previous information provided; does not result in deviation from agreed commitments; or does not increase the level of environmental risk.

Where an update is required, MD-LOT will be consulted to determine whether the level of changes signifies a material change to an approved plan that requires formal consultation, or a non-material update to be approval by MD-LOT. MD-LOT may wish to liaise with statutory stakeholders for advice to assist making these determinations.

It is anticipated that the review and update process will be as follows:

- a) Document review undertaken by ICOL (triggered by influencing factor listed above).
- b) Need for an update of document communicated to MD-LOT and ICOL to inform MD-LOT whether it is deemed it as material or non-material.
- c) MD-LOT to notify ICOL whether they are in agreement of the materiality of the change (and therefore whether or not formal consultation will be required).
- d) If change is considered non-material, ICOL will provide an updated CEMP for MD-LOT to review, approve and make available.

Or:

e) If change is considered material, ICOL updates the CEMP, and a formal consultation on the updated CEMP is undertaken.

A separate Operations and Maintenance Environmental Management Plan (OEMP) will be in place prior to the final Commissioning of the Development for the commencement of the Operational Phase. ICOL will liaise with MD-LOT to ensure that any relevant commitments made during the application or preconstruction phases are suitably followed through into the operational phase.



# 2 Environmental Management Framework

This section details to those involved in the construction of the Inch Cape Project the Environmental Management framework required to manage environmental commitments made by ICOL, mitigation requirements as identified in the Environmental Impact Assessment Report (EIAR), and the requirements of the consent's conditions, as detailed in section 1.3 of this document.

Furthermore, this section aims to identify good practice and requires that ICOL and its Contractors comply with the relevant and current environmental and maritime legislation as standard.

This section sets out the Environmental Management framework for the Project, under the following areas:

- Policies
- Construction Management
- Environmental Roles and Responsibilities
- Environmental Reporting
- Environmental Incidents and Non-Compliance Procedures
- Environmental Competency and Training of Personnel

Contractors, notwithstanding their duties under the CDM Regulations shall generate an environmental management plan (or equivalent) based on this one, that will be submitted for review and approval by ICOL and ICOL ECoW in advance of construction. Contractor EMPs where the specific environmental requirements and obligations established in this CEMP have not been fully or reasonably considered by the Contractor will not be accepted by the Inch Cape project.

### 2.1 Inch Cape HSE Charter

ICOL have set out an HSE Charter with regards to health, safety and environmental management.

ICOL is committed to:

- Protecting the environment, preventing pollution and minimising adverse environmental impacts.
- Play its part as a responsible business by achieving the highest possible standard of environmental management and by embedding sustainability in all its activities.
- Effectively communicating with our supply chain and stakeholders, and to engage with the community to enable inclusive input in achieving the highest possible environmental



standards.

- Considering the life cycle of materials from design to decommissioning.
- Promoting the 17 UN Sustainable Development Goals in all our activities.

#### 2.2 Construction Management

Inch Cape's Principal Contractors, Contractors and their Subcontractors, in undertaking the construction of the Inch Cape Project shall ensure compliance with this CEMP and all relevant environmental and maritime legislation.

All necessary subsequent licences and permissions required for construction works (e.g. EPS licences, dredging licences, etc) shall be obtained by the corresponding Principal Contractor, unless otherwise agreed with ICOL.

ICOL require that design embedded measures and adherence to good working practice is applied by all Principal Contractors, Contractors (and their Subcontractors) throughout the construction phase, seeking to minimise the risks to the environment.

The implementation of such measures will be managed by appropriately qualified and experienced Contractor Environmental Advisors (CEAs), appointed by the Principal Contractor throughout the duration of the construction period.

The relevant CEA is required to liaise with the Inch Cape Environmental Clerk of Works (ECoW) as detailed in Section 2.3.10 below. The ECoW will review and approve consent plans and will oversee and monitor compliance with consent conditions. The ECoW will be an independent party and will provide regular reporting on compliance monitoring, good practice and mitigation measures, both to Inch Cape's Environmental Lead and Consents Team and to MD-LOT throughout the construction phase of the Inch Cape Project.

Principal Contractors, Contractors and Subcontractors will also be required to produce their own EMPs that are specific to their works on the Inch Cape Project and that align and comply with this CEMP. These EMPs, notwithstanding the Contractors duties under the CDM Regulations will be submitted to ICOL in advance of construction, for review and acceptance by ICOL and the ECoW.

ICOL will organise a kick off meeting with the different Contractors to explain and clarify the contents of this CEMP.

Each Principal Contractor is required to appoint a spill response subcontractor prior to offshore works commencement unless other arrangements are agreed with ICOL (e.g. Inch Cape may appoint the Spill Response Contractor to cover the overall project scope). This information will be updated in the next revision



of this document.

Good working practices and construction methodologies that will be applied during the construction of the Inch Cape Project are set out in the Construction Method Statement (CMS) ICOL-INT-EC-OFC-004-INC-PLA-001.

#### 2.2.1 Landfall Works

At landfall, in addition to the requirements and obligations placed by the different sections of this CEMP on ICOL and the Contractors to conduct these works, there will be an additional interface with the onshore construction works ongoing at the time, that must be adequately managed. There are also additional obligations (that only apply to these works) that are further explained in the following subsections.

#### 2.2.1.1 Onshore Construction Environmental Management Plan (Onshore CEMP)

ICOL Onshore Transmission Works – Construction Environmental Management Plan (Onshore CEMP) (IC02-INT-EC-ONC-004-INC-PLA-001) contains the requirements and provides practical guidance on management of the potential environmental risks and impacts associated with the construction of the Onshore Transmission Works. This document has been prepared by ICOL in support of the discharge of Condition 4 of Planning Permission in Principle 21/01474/PPM.

Contractors undertaking the Landfall Works shall ensure that the relevant requirements and mitigation measures on the ICOL Onshore CEMP are also considered and included in their risk assessments, method statements and the EMP and other relevant documentation that will be implemented during their participation on the landfall works.

#### 2.2.1.2 Site investigation and surveys

ICOL shall submit to the Licensing Authority and Forth Ports a copy of all results from all investigations, soil tests, bores, seismic surveys, etc. involved in the works at landfall.

#### 2.2.1.3 Risk Assessment and Method Statement

ICOL, prior to commencement of each stage of the works, shall provide Forth Ports with a Method Statement and Risk Assessment for any works, for Forth Ports' prior approval. Any reasonable requirements of the Forth Ports Harbour Master should be addressed in advance of any such works being undertaken.

Contractors will provide the required documentation to ICOL 4 weeks in advance of commencement



of the works so this obligation can be fulfilled.

#### 2.2.1.4 Flood Risk at Landfall Works

ICOL commissioned the undertaking of a Flood Risk Assessment (FRA) (IC02-INT-EC-ONC-012-INC-RPT-002) to assess the potential flood risk to the proposed onshore construction works. Whilst the FRA reviewed and screened a full range of flood risks, it focused on the coastal flood risk, and in particular three aspects: extreme sea levels, wave overtopping flows and their effects, and direct airborne discharge onto the site.

Prior to commencement of landfall works, the Contractor will submit to ICOL for approval, a **Scheme for contingency planning to deal with a flood event** during the construction period when the coastal rock armour defence has been deconstructed. The plan will be submitted no later than 6 weeks ahead of commencement of works. Works will be carried out in accordance with the approved scheme.

The removal of the rock revetment will be designed to prevent breach by seawater. Additional mitigation may include but not be limited to measures such as monitoring the storm surge forecast and weather forecast prior to and during construction activity, to prevent surges from breaching the rock revetment during construction. Once reinstated, the rock revetment will be returned to the same profile as found prior to commencement of the Inch Cape works.

The Contractor will be responsible for implementing a localised coastal flood warning system during landfall works in consultation with SEPA.

#### 2.2.1.5 Environmental Protection at Landfall

Where landfall works operations result in a pollution event either on land or in the sea in connection with operations on, in, about or in connection with the works, ICOL and the Contractor shall ensure that arrangements are made for carrying out of all measures considered to be reasonably necessary in the opinion of Forth Ports for the clearance and removal of any such pollution. (Incident reporting will be conducted as described in section 2.5 of this document).

Contractor will ensure any environmental impacts caused by the activities are remediated to the satisfaction of ICOL and Forth Ports.

The Contractor (and Subcontractors) shall ensure that appropriate steps are taken to minimise damage to the beach and foreshore by the works. On completion of the works, the Contractor shall ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.



## 2.3 Roles and Responsibilities

This section sets out the roles and responsibilities of all relevant Development personnel during the construction phase, in relation to the delivery of the consent requirements, management of environmental aspects and EIA Report commitments and compliance with this CEMP. Those roles have been identified as shown in Figure 2.1 and listed below.

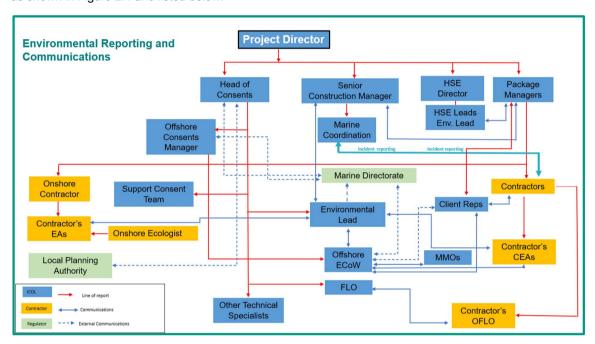


Figure 2-1: Inch Cape Organogram

Key roles in Inch Cape include:

- Inch Cape Project Director
- Inch Cape Senior Construction Manager
- Inch Cape Package Managers
- Inch Cape HSE Director
- Inch Cape Head of Consents
- Offshore Consents Manager
- Inch Cape Client Representatives



• Inch Cape Lead Marine Coordination

Supporting roles to this structure reporting to the Inch Cape Lead Consents Manager are:

- Inch Cape Environmental Lead
- Inch Cape Offshore Consents Manager
- Inch Cape Fisheries Liaison Officer (FLO)
- Inch Cape Environmental Clerk of Works (ECoW)
- Inch Cape Archaeological Consultant
- Inch Cape Consents Team

#### Other roles are:

- Contractors
- Contractor Construction Environmental Advisor (CEA)
- Offshore Fisheries Liaison Officer (OFLO)

Inch Cape Principal Contractors, Contractors (and Subcontractors) carrying out the construction activities are responsible for complying with this Offshore CEMP. Contractors shall write their own EMPs based on the requirements described in this document.

#### 2.3.1 Inch Cape Project Director

Reports to: ICOL Board

The Project Director is accountable to the Inch Cape Board and has overall responsibility for ensuring the project is built and operated in accordance to protecting the environment, preventing pollution and minimising adverse environmental impacts.

The Project Director has overall responsibility for project delivery and governance.

#### 2.3.2 Inch Cape HSE Director

Reports to: Project Director

Is the central point of contact for the authorities regarding health, safety and environmental related issues and will liaise with the Environmental Lead regarding environmental incidents and incident response and environmental related matters.



### 2.3.3 Inch Cape Environmental Lead

Reports to: HSE Director & Head of Consents

The Environmental Lead is part of a team responsible for monitoring compliance with this CEMP, the project consents and environmental legislation, on behalf of Inch Cape.

The responsibilities extend across both offshore and onshore activities (not covered in this CEMP), to ensure a consistent approach to compliance and environmental management is applied. The Environmental Team also includes the Environmental Clerk of Works (ECoW), the Fisheries Liaison Officer (FLO) and any other technical disciplines as required.

The Environmental Lead will support the project by:

- Reviewing Contractor project documentation including but not limited to, EMPs, MPCPs, vessel bridging documents, waste management plans, offshore bunkering plans and risk assessments, method statements and installation manuals for the different scopes of work to ensure the relevant consent requirements are adequately captured by the documentation to be used by the Contractors while conducting the work.
- Providing environmental and compliance input to internal and external meetings, including HIRAs, readiness reviews, pre-mobilisation and progress review meetings, lessons learned, etc.
- Generating the required ICOL environmental related documentation including but not limited to this CEMP and MPCP.
- Act as the CEA for the scopes of work where/if ICOL is Principal Contractor.

The Environmental Lead is a subject matter expert with regard to Environmental Management and legislation. The Environmental Lead will oversee/conduct Inch Cape environmental audits, inspections and reviews in relation to:

- Incident response readiness, including observing Contractor environmental drills and exercises, such as drills to test vessel Shipboard Oil Pollution Emergency Plans (SOPEPs) and Contractor MPCP and pollution control measures.
- Control of work processes, discharges to sea, incident reporting, incident investigation, permanent and temporary deposits, environmental training and competency of project personnel, waste management, fuel and chemical storage and management, Invasive Non-Native Species, air emissions, marine archaeology, marine wildlife, dropped object preparedness and consent documentation and awareness.
- · Contractor documentation including risk assessments and method statements in advance of



any works, for activities that may pose an environmental risk.

The Environmental Lead will be provided access to Contractor's Marine and Vessel Inspection documents (CMID) in advance of audits and inspections.

The Environmental Lead is the key Inch Cape environmental contact for environmental incidents and will liaise with the ECoW, Package Managers, Marine Co-ordinator, HSE Director and Regulators, in accordance with this CEMP.

The Environmental Lead will liaise with the Inch Cape HSE Team to ensure a consistent approach and standards are adopted.

The Environmental Lead and ECoW will work together to produce environmental training material regarding environmental and consents compliance, to be presented to Inch Cape Management, Client Representatives and Contactors.

## 2.3.4 Inch Cape Senior Construction Manager

Reports to: Project Director

The Inch Cape Senior Construction Manager has the following responsibilities in relation to the CEMP:

- Require that sufficient resources and processes are in place across the construction packages to deliver/comply with this CEMP and to manage environmental risks.
- Require that the Inch Cape ECoW is integrated into the daily project reporting and notifications received, in order to monitor Contractor compliance with the consents.
- Require that Client Representatives provide support to the Environmental Lead and Offshore ECoW.
- Provide input in environmental incident and Non-Compliance investigations as required.

#### 2.3.5 Inch Cape Package Managers

Report to: Project Director

The Inch Cape Package Managers have the following responsibilities in relation to the CEMP:

- Establishing contractual obligations for Contractors in relation to this Offshore CEMP.
- Requiring that sufficient resources and processes are in place across their work package to deliver/comply with the Offshore CEMP and to manage potential environmental risks.



- Ensure that any corrective actions arising from environmental incidents and/or noncompliances are implemented.
- Sign off Non-compliance Reports.
- Require that Client Representatives provide support to the Environmental Lead and Offshore ECoW.
- Require that the Inch Cape Offshore ECoW is integrated into the daily project reporting and notifications received, in order to monitor Contractor compliance with the consents.
- Ensuring reviews are conducted on Contractors environmental performance and consent compliance.

#### 2.3.6 Inch Cape Client Representatives

Report to: Package Managers

The Client Representatives have the following responsibilities in relation to the CEMP:

- Oversee Contractor reporting of environmental incidents, near misses and non-compliances in accordance with this CEMP.
- Ensure that the Marine Archaeology procedures are followed in the event of an archaeological discovery or the breach on an Archaeological Exclusion Zone (AEZ).
- Observe environmental protection measures and raise any concerns with the Contractor/vessel.
- Actively participate in environmental matters submitting environmental observations (SOCs/HOCs) either directly to the Contractor, with regards to a matter on board or raised directly to ICOL Environment Lead/ECoW whatever is deemed suitable.
- Assist with conducting inspections/checks of vessel and assets.
- Regularly interface with the Environmental Lead and ECoW as necessary.

#### 2.3.7 Inch Cape Lead Marine Coordinator

Reports to: Senior Construction Manager

The Inch Cape Lead Marine Coordinator (and Duty Marine Coordinator) is responsible for the monitoring of people, vessels and offshore structures with regards to the safe preparation and



execution of the offshore construction activities. Key responsibilities relevant to this CEMP include the following:

- First point of contact for all offshore environmental emergencies and incident reporting.
- Management and coordination of marine coordinators and distribution of incident notifications within ICOL.
- Issue navigational safety notifications, including Notice to Mariners (NtMs) and Notice to Airmen (NOTAMs).
- Generate the Vessel Report, prior to mobilisation and weekly throughout construction.

## 2.3.8 Inch Cape Head of Consents

Reports to: Project Director

Manages a team responsible for monitoring and reviewing compliance with the project consents and environmental legislation, on behalf of Inch Cape.

The responsibilities extend across both Offshore and Onshore activities, to ensure a consistent approach to compliance and environmental management is applied. The team includes the Environmental Lead, the Environmental Clerk of Works (ECoW), the Fisheries Liaison Officer (FLO) and any other technical disciplines required (e.g. MMO) and a supporting Consents team as required.

Further responsibilities of the Head of Consents are:

- Primary contact for MD-LOT, statutory bodies and stakeholders (excluding the responsibilities undertaken by Inch Cape's ECoW).
- Where necessary, managing the process of obtaining new consents.
- Attendance at ICOL leadership meetings, providing environmental and consents compliance input.

#### 2.3.9 Inch Cape Offshore Consents Manager

Reports to: Head of Consents

Main responsibilities are:

- Primary contact for FRTRAG
- Reporting to MD-LOT and FTRAG in respect of the PEMP.



- Manage the discharge of Marine Licence conditions
- Co-ordinate the preparation and submission of Consent Plans, as required
- Attendance at Inch Cape internal and external meetings, providing compliance input
- Liaise with the ECoW for the review and approval of Consent Plans.

## 2.3.10 Inch Cape Environmental Clerk of Works (ECoW)

Reports to: Offshore Consents Manager

The ECoW is a key role defined under condition 27 of the S36 and conditions 3.2.2.24 and 3.2.2.21 of the Generation and OfTI Marine Licences, which requires that an ECoW be appointed prior to the Commencement of the Works.

The Offshore ECoW must be appropriately qualified and a member of a recognised organisation such as the Chartered Institute of Ecology and Environmental Management or the Institute of Environmental Management and Assessment.

The responsibilities of the ECoW include, but are not limited to:

- Review and quality check all consents plans and programmes (including but not limited to CMS, CEMP, CaP, PEMP, the PS and the VMNSP) and thereafter monitor compliance with the same
- Report on compliance to Inch Cape and to MD-LOT (within the remit of the Offshore ECoW consent conditions).
- · Liaise with MMO during the piling activities.
- Liaise with the Fisheries Liaison Officer (FLO) during incidence of non-compliance with the Fisheries Mitigation and Management Strategy (FMMS)
- Liaise with the Archaeological Consultant following the discovery of a potential find or following an infringement of an Archaeological Exclusion Zone (AEZ)
- Liaise with MD-LOT, statutory bodies and stakeholders, as required.
- Provide the Environmental Lead with ad-hoc advice, giving due regard to the independent role and overall remit of the ECoW
- Review and approve relevant contractor documents from a compliance perspective, develop
  training materials on compliance with consent plans, the Marine Licences and Section 36
  Consent, for use by Inch Cape personnel in inductions and other awareness campaigns.



Attend internal and Contractor meetings, providing compliance guidance.

The ECoW role will be carried out by a party appointed by the Licensee subject to the written approval of the Licensing Authority.

Appointed ECoW: Stuart McCallum (Natural Power Consultants Ltd.)

#### 2.3.11 Inch Cape Fisheries Liaison Officer (FLO)

Report to: Offshore Consents Manager

The FLO has the following responsibilities in relation to the CEMP:

- Provide information relating to the safe operation of fishing activity within and in the vicinity of the Project Area.
- Participate in the Forth and Tay Commercial Fisheries Working Group (FTCFWG), to facilitate commercial fisheries dialogue on behalf of Inch Cape.
- Monitor compliance with good practice guidelines and the Fisheries Management and Mitigation Strategy (FMMS).
- Liaise with Inch Cape ECoW and Offshore Fisheries Liaison Officers (OFLOs) regarding compliance with the FMMS.
- Develop material on compliance with the FMMS to Inch Cape personnel for use in inductions, presentations, production of awareness material, regarding good practice in managing coexistence and good relations between all construction personnel and activities and the commercial fishing vessels.

Appointed FLO: Peter Berney (Natural Power Ltd).

#### 2.3.12 Inch Cape Archaeological Consultant

Reports to: Offshore Consents Manager

The Archaeological Consultant will be responsible for advising Inch Cape on all archaeological matters relating to the Project that might impact upon archaeological and cultural heritage resources.

The Archaeological Consultant has the following responsibilities:

Assume clear role of interface between Inch Cape and Historic Environment Scotland (HES)
in the event of a potential find or an infringement of an AEZ, as detailed in the PAD.



- Liaise with the ECoW in the event of a potential find or an infringement of an AEZ.
- Liaise with the ECoW regarding compliance with the PAD.

In relation to reporting of finds of archaeological interest, the Archaeological Consultant will:

- Brief Inch Cape personnel and Key Contractor personnel on the types of archaeological finds and features that may be encountered and appropriate measures for interim conservation and safe storage.
- Advise Inch Cape on the identification of finds and features and, if reasonably practicable, the character of their seabed locations.
- Advise Inch Cape on material conservation of any recovered finds and any appropriate actions to be taken; and
- Where appropriate, pass on all details and records associated with any discoveries to MD-LOT and Historic Environment Scotland.

Appointed Archaeological Consultant: TBC

### 2.3.13 Inch Cape supporting Consents Team

Report to: Head of Consents

The Inch Cape Consents Team has the following responsibilities:

- Request any variations to consents or licences as required.
- Manage the discharge of the Section 36 Consent and Marine Licences conditions.
- Act as primary contact for MD-LOT, statutory bodies and stakeholders (excluding the reporting duties undertaken by the Environmental Lead and ECoW)
- Co-ordinate the preparation and submission of revised Consent Plans, as required.
- Attendance at Inch Cape internal and external meetings, providing compliance input.
- Liaise with the ECoW for the review and approval of Consent Plans.
- Support the Environmental Team with audits and inspections and review of key Contractor documentation.



#### 2.3.14 Contractors

Report to: Inch Cape Package Managers and Senior Construction Manager (as appropriate)

All Contractors (Principal Contractors, Contractors and Subcontractors), notwithstanding their specific duties under the CDM Regulations shall ensure that their project documents and installation procedures align with the Inch Cape Consents, and associated Consent Plans (including this CEMP).

Contractors will produce their own EMP (or equivalent) relevant to their scope of work in the project, based on the content and requirements of this plan. Compliance with this CEMP is a contractual requirement.

Contractor responsibilities include but are not limited to:

- Ensuring that sufficient and suitably qualified resources are in place to manage compliance
  with all relevant Inch Cape Consents and Licences, as well as the environmental
  requirements of the EIA Report (EIAR), and all relevant maritime and environmental
  legislative requirements pursuant to the Contractor's activity.
- Producing emergency response and safety and environmental management system bridging
  documents (Vessel bridging documents) for each vessel. These documents will summarise
  the key environment requirements relevant to the specific scope of work of the vessel and
  the activities of the construction/installation teams onboard, contain all the relevant forms and
  contact details to allow timely incident notifications, and signpost the corresponding
  overarching environmental documentation both from the Principal Contractor and ICOL as
  required.
- Ensuring that inductions are provided and that they provide an overview of the Inch Cape consents and licences requirements, cover project environmental management matters, and the reporting of environmental incidents and non-compliances.
- Ensuring that all Contractor personnel are made aware of environmental matters and the need to comply with the Contractors EMP(s) and all applicable Inch Cape Consent Plans and relevant environmental legislation.
- Having task specific method statements and risk assessments in place in advance of works, to ensure compliance with the Contractor EMP.
- Ensuring that the contracting strategy does not dilute the message of the need to adhere to
  the requirements of this document and in turn the Contractor EMP and task specific method
  statements and risk assessments.
- Monitoring compliance with the Contractor EMP and task specific method statements and risk assessments during construction. Compliance monitoring activities should include (but



not be limited to) regular audits, weekly inspections and drills.

- Producing and maintaining records of the above and making these records available to the Inch Cape ECoW and Environmental Lead.
- Reporting any environmental non-compliance directly to the Client Representative and to the Inch Cape ECoW.
- Ensuring all most current Consent Plans are available onboard (either as hard copies or electronically) the relevant Contractor vessels engaged on the Project.
- Liaising with the Inch Cape ECoW, Environmental Lead, and FLO, where required.
- Facilitate inspections of Contractor vessels / sites, etc. pre-mobilisation and during construction.

Appendix A lists the different deliverables Contractors are required to provide as to fulfil the requirements, commitments, and obligations for ICOL on the Inch Cape project.

## 2.3.15 Contractor Construction Environmental Advisor (CEA)

Report to: Principal Contractor

Principal Contractors are required to appoint a Construction Environmental Advisor (CEA) suitably qualified, competent and with proven experienced in offshore construction projects. The Construction Environmental Advisor will be a full-time resource for the duration of the Contractor's construction works and, if required, during the design period (unless otherwise agreed with Inch Cape).

The Contractor shall provide evidence of competence of the Construction Environmental Advisor, to the Employer via submission of relevant information (e.g. CV, training records, membership records) for acceptance prior to commencement of construction works.

The Construction Environmental Advisor will be dedicated to delivering the requirements of the Inch Cape consents conditions and wider environmental matters. The CEA must be provided with adequate resources and tools including a Principal Contractor laptop and unrestricted access to all relevant controlled documentation and incident reporting systems. The CEA will have the authority to take all reasonable steps to ensure the environmental requirements are implemented and managed in relation to the Principal Contractor's works.

The Construction Environmental Advisor will, as a minimum:

 Lead on all environmental matters connected with the Contract, including compliance with environmental legislation and the Inch Cape consents and licences.



- Input and attendance to Principal Contractor and Contractors and Subcontractors HIRAs, SIMOPs, etc. for the Principal Contractor scope of work.
- Lead the environmental compliance monitoring for the Principal Contractor (and corresponding contractors' and subcontractors') works.
- Lead on environmental incident preparedness and response.
- Act as key interface between the Principal Contractor and Inch Cape ECoW and Environmental Lead.
- Ensure that Inch Cape environmental reporting processes are implemented and complied with by the Principal Contractor and corresponding Contractors and Subcontractors.
- Develop and implement the Principal Contractor's EMP and ensure the Contractors' and Subcontractors' EMPs (or equivalent project document) are aligned with it.
- Develop and deliver environmental training and inductions that provide an overview of the Inch Cape consents and licences requirements, cover project environmental management matters, and the reporting of environmental incidents and non-compliances to all relevant Principal Contractor, Contractors and Subcontractors personnel.
- Maintain training and induction records for the duration of the Inch Cape Project works and provide to Inch Cape copies of the records when requested.
- Review and provide environmental input and guidance to the Principal Contractor, Contractors and Subcontractors method statements, risk assessments, construction procedures and all relevant documentation (including bridging and interfacing documentation) prior to submission to Inch Cape (where relevant). Documentation will NOT be accepted otherwise.
- Undertake regular environmental audits and weekly inspections of the Principal Contractor,
   Contractors and Subcontractors vessels, sites at the different work stages to ensure compliance with legal and consent requirements.
- Ensure timely follow-up and close out of all non-compliances, actions and opportunities for improvement raised during Inch Cape audits and inspections.
- Ensure timely close out of incidents, near misses and non-compliances make sure that robust investigations are carried out, suitable root cause analysis conducted, and corrective and preventive actions are established and implemented.
- Provide advice and instruction to construction teams to deal rapidly and effectively with Inch
   Cape Consents non-conformities and environmental incidents.



 Analyse environmental incidents and non-compliances to identify trends and develop and implement specific training and awareness sessions that aim to prevent recurrence and minimise the environmental impact of the Contractor's activities.

### 2.3.16 Offshore Fisheries Liaison Officer (OFLO)

Report to: Principal Contractor

The Principal Contractor shall appoint Offshore Fisheries Liaison Officers (OFLOs) who will be present on main installation vessels (to be agreed with ICOL) whilst these are performing construction works in the Project Area. The Principal Contractor OFLOs position is a key personnel position included in contract.

The OFLOs shall be a suitably qualified and experienced person. A 'suitably qualified and experienced person' in relation to Contractor OFLOs means "a person who has sufficient experience in performing the duties of a fisheries liaison officer, whose judgement can be used to comment on or to resolve a technical problem with finality".

The OFLOs shall, as a minimum:

- Maintain regular contact with the Inch Cape FLO and other Inch Cape personnel, as required, concerning marine traffic and fishing vessel activity in the outer Firth of Forth.
- Communicate with the Vessel Master in respect of providing any relevant information to
  fishing vessels. When the vessel is not engaged in marine operations, the OFLO should work
  with the Vessel Master to avoid, where possible, fishing vessels actively engaged in fishing
  operations.
- Liaise with any fishermen who may have static gear deployed in or near the Project Area.
- Work with the Vessel Master to ensure adherence with relevant aspects of the FMMS.
- Record the detail of any fishing activity in and around the Project Area and of any incidents
  of infringement or movement or damage to static gear.
- Provide a daily update report by email to the Inch Cape FLO.
- If required, attend meetings with Inch Cape personnel including the Inch Cape FLO.



### 2.4 Routine Reporting, Notifications and Communications to Stakeholders

This section covers Inch Cape routine reporting, notification and communications to MD-LOT and relevant stakeholders as required by this CEMP and as set out in the consent's conditions.

Table 2.1 Outlines proposed routine reporting requirements.

Activity	Summary of Requirement	Responsibility	Frequency	Report to
ECoW Monthly Compliance Report	As shown in Appendix D, the report will detail construction progress and issues.		Monthly	MD-LOT /NatScot
TAR (Transportation Audit Report)	The report will detail the nature and quantity of all substances and objects deposited and materials used in construction in that calendar month.  Environmental Lead / Consents Team		Monthly	MD-LOT
Inch Cape progress update	Determined by construction/compliance activity levels	Environmental Lead / Consents Team	Teleconference monthly and meetings quarterly	MD-LOT
Piling Strategy (PS) compliance report	Spreadsheet recording parameters that are used to monitor for compliance (see Inch Cape Piling Strategy)		Weekly (during piling)	ECoW
Weekly Notice of Operations (WNoO)	Publicly available update notice of marine operations targeted at other users of the sea	Marine Coordinator	Weekly	Sea users
Marine coordination notifications	Includes Notices to Mariners (NtM) and Notices to Airmen (NOTAM)	Marine Coordinator	As and when required depending on construction activity	Sea users

#### 2.4.1 Contractor reporting

Appendix A contains a list of the different deliverables Contractors are required to provide throughout their participation on the works to allow ICOL conduct the different reporting and notifications to stakeholders as it is required by the consents.

### 2.5 Environmental Incidents and Non-Compliance reporting processes

The Principal Contractor is responsible for identifying and documenting all risks to the environment associated with their activities during the Inch Cape Project works and implementing all suitable controls and processes to ensure compliance with Inch Cape Consents and to prevent environmental incidents. All such measures, shall, as far as is reasonably practicable, be implemented in advance of works.



The Principal Contractor is also responsible for ensuring there are suitable response and reporting processes in place in advance of the works, that are to be employed in the event of any environmental incidents and non-compliances with the Inch Cape Consents or environmental legislation.

All Contractors (notwithstanding their duties under the CDM Regulations) shall report all environmental incidents within 60 min of occurrence. A written initial report with the basic details of the incident and actions taken must be submitted to the Marine Coordination Centre who will in turn notify the Inch Cape Package Manager, Senior Construction Manager and ICOL Environmental Lead and other required personnel. The final incident report will be submitted by the Contractor within 7 days. The period of the submission of the report can be extended upon agreement with ICOL. Please note that both incidents and non-compliance reports will need to have a root cause analysis section included within the report, otherwise it would not be accepted.

The ICOL Incident Reporting and Investigation Procedure (IC02-INT-HS-PPP-005-INC-PRO-001) provides the framework for incident reporting and investigation for the Inch Cape Project, the incident reporting process, minimum information to be provided and root cause analysis requirements. The specific reporting requirements for environmental incident is also described below.

The following shall be reported as **environmental incidents** in line with the specific details provided in the Appendixes:

Table 2.2 Outlines proposed routine reporting requirements.

3	•
Incident Type	Location of Response Procedure
Pollution incident (oil or chemical spill to sea)	Section 2.5.1.1 of this document and Appendix E
Dropped Objects to sea	Section 2.5.1.2 of this document
Infringement of Archaeological Exclusion Zone	Section 2.5.1.3 of this document
Wildlife injury or fatality / Marine species disturbance	Section 2.5.1.4 of this document
Damage to static fishing gear & fisheries liaison issues	Section 2.5.1.5 of this document
Non-Compliance	Section 2.5.1.6 of this document

ICOL, Contractors and Stakeholders contacts that need to be included in the different incident and non-compliance notifications are included in Appendix B.

If a non-compliance is discovered offshore, the observer shall report it to the ICOL Client Representative onboard who will initiate the communication and reporting within ICOL, otherwise, non-compliances can be reported to the ICOL ECoW or Environmental Lead directly by the Contractor or ICOL personnel.



## 2.5.1 Incident & Non-Compliance Categorisation

The incident categorisation to be used by the Inch Cape Project is described in the **ICOL Incident Reporting and Investigation Procedure** (IC02-INT-HS-PPP-005-INC-PRO-001) whereby incidents are classified from Impact level 0 (very low/low potential impact) to Impact level 3 (high potential). The following table describes the environmental incident categories:

Table 2.3 Environmental Incident and Non-compliance definitions

Class	Impact Level	Definition	Actions
Environmental Near Miss	Level 0 (Very Low) (Low Potential Impact)	No corrective actions required	The incident will be reported by the Contractor as detailed in the following sections of this document.
<b>Minor</b> environmental incident / non- compliance event	Level 1 (Low) (Low Potential impact	A localised and short-term environmental event such as release, spillage or discharge to the environment that does not require external support and can be corrected by available personnel and/or materials. Certain types of incidents may require to be reported to the Regulator.  No harm to human health	<ul> <li>Contractor to implement incident response procedures.</li> <li>The incident / non-compliance will be reported by the Contractor as detailed in the following sections.</li> <li>ECoW to log event and detail on ECoW Monthly Compliance Report.</li> <li>Incident / non-compliance can be appropriately managed through implementation of appropriate Contractor EMP.</li> <li>Incident / non – compliance does not require regulatory authorities to be involved (except for spills and dropped objects to sea all of which must be reported to MD-LOT and MCA) but is reported to Environmental Lead for logging onto ICOL incident database system.</li> </ul>
Serious environmental incident / non- compliance event	Level 2 (Medium Potential Impact)	An event that is likely either by omission or breach of consents or environmental legislation to cause long term but localised harm to the environment or short term but widespread which remediation is within the capability of the Contractor.  Several complaints from individuals and short-term local media interest.  Minor or no harm to human health  No long-term ecosystem damage.	<ul> <li>Contractor to immediately implement incident response procedures.</li> <li>Incident/non-compliance requires immediate notification to ICOL per the Incident Reporting Procedure / CEMP.</li> <li>Incident to be reported to the relevant regulatory authorities as per specific incident procedures (see Appendix B for details)</li> <li>Following the incident/non-compliance Contractor to complete report and issue to ECoW.</li> <li>ECoW to log event, detail on ECoW Monthly Compliance Report and discuss with relevant regulatory authorities at regular progress meetings.</li> <li>Incident/non-compliance may require management practices in addition to the implementation of the appropriate EMP (either Inch Cape's or the Contractors'). Where this is the case management practices must be agreed with ICOL and regulatory authorities where appropriate prior to implementation</li> </ul>



Class	Impact Level	Definition	Actions
Major environmental incident/non- compliance event	Level 3 (High Potential Impact)	An event that is likely either by omission or breach of consent or environmental legislation, to cause widespread and long-term damage to the environment. The remediation of the environmental damage is outside of the capability of the Contractor. May require assistance from government agencies and/or other external resources.  Many widespread or long-term complaints.  Substantial damage to human health  Short term national or long-term local media interest. Ecosystem damage lasting over a year.	<ul> <li>Immediate stoppage of works by Contractor.</li> <li>Contractor to immediately implement incident response procedures.</li> <li>Incident / non – compliance requires immediate notification to ICOL per the Incident Reporting Procedure/ CEMP.</li> <li>Incident / non-compliance requires immediate notification of the regulatory authorities by ICOL.</li> <li>Following the event, Contractor to complete report and issue to Environmental Lead, HSE Director and ECoW.</li> <li>ICOL and Contractor to hold incident / non-compliance meeting.</li> <li>Following the meeting, ECoW Non-Compliance Report/ incident report (as applicable) to be completed with input from the Contractor and ICOL and issued to the regulatory authorities. Meeting to be held between ICOL and the regulatory authorities to discuss the content of the Report.</li> <li>Incident / non-compliance likely to require management practices in addition to the implementation of the appropriate EMP (either ICOL'S or the Contractor's). Where this is the case management practices must be agreed with ICOL and regulatory authorities where appropriate prior to implementation.</li> <li>ECoW to log event and detail on ECoW Monthly Compliance Report.</li> </ul>

All offshore incidents, irrespective of classification, should be reported to Inch Cape Marine Coordination in the first instance.

The reporting processes described below should be implemented within the Contractor working practices and clearly described within the Contractor's EMPs and Vessel bridging documents. Please note that this is applicable to all Contractors notwithstanding their duties under the CDM Regulations.

In the event where it is required to report an incident to the Health and Safety Executive, MD-LOT will be notified by ICOL of such event within 24 hours of occurrence. If initially it is unclear whether an incident requires reporting to the Health and Safety Executive, ICOL would still notify MD-LOT within 24 hours.

#### 2.5.1.1 Spills to sea

Principal Contractors will produce a Contractor Marine Pollution Contingency Plan (MPCP) that is compliant with the Inch Cape MPCP (Appendix E).



In the event of a spill into the marine environment, the Contractor shall follow the specific MPCP for their scope of work which will bridge the Inch Cape MPCP requirements to the vessel/s Shipboard Oil Pollution Emergency Plan (SOPEP) and provide further guidance on actions for the different spill tiers.

The incident then must be reported to Inch Cape Marine Coordination by the Contractor within 60 min. The Contractor Vessel Master or Contractor Senior Offshore Person must also notify His Majesty's Coastguard (HM Coastguard) initially by telephone.

The Contractor Vessel Master or Contractor Senior Offshore Person is then obliged to complete and submit a pollution report (POLREP) using the Inch Cape POLREP template provided in Appendix B1. The Inch Cape MCC will be copied in the notification email.

The MCC will notify the Inch Cape Environmental Lead who will make contact with the Marine Directorate (MD-LOT) in relation to such pollution incidents.

For Tier 2 and 3 spill response incidents, the Principal Contractor (or ICOL, this is still to be determined) will be responsible for co-ordinating oil spill response using suitably qualified and experienced oil spill response subcontractors. The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not decided yet. This key information will be included in the next revision of this document.

The Contractor will be required to co-operate with Inch Cape on any queries and investigations in relation to marine pollution incidents.

<u>At landfall</u>, in addition to the above, if the event of a pollution incident, the incident shall also be reported by the Contractor to Forth Ports immediately on 01324 498584 or by VHF channel 71.

Pollution incidents at Landfall shall also be reported to SEPA.

#### 2.5.1.2 Dropped Objects to sea

In the event of a dropped object to sea during the works (or any other accidental deposit anywhere in the marine environment of any substance or object, including by need of Force Majeure) the Contractor vessel/team must report it within 60 min to Inch Cape Marine Coordination as an environmental incident.

If the object is not retrieved at the time, then the Contractor is required to complete the latest version of the Marine Directorate Dropped Objects proforma (currently form **DROPOB1**, version 02, see Appendix B2) and return this to the Directorate (and all other contacts on the DROPOB1 form), copy Inch Cape MCC, and the organisations listed on the form, **no later than 12 hours** of the incident occurring (or as soon as possible where there is likely to be a significant hazard to other sea users). In circumstances where not all the information is available within 12 hours, the form should be



submitted and can be updated later.

Every reasonable measure should be taken to immediately retrieve dropped objects where this is considered reasonably practicable. If the dropped object is recovered immediately at the time of the incident or upon discovery of an object being dropped, there is no need to submit the proforma, however the incident will be still recorded by the Contractor, reported to ICOL and investigated as per the incident investigation requirements.

The Contractor is responsible for attempting to retrieve the dropped object, as soon as possible, at all times where safe to do so (a Marine Licence is not required for such recovery under the Marine Licensing (Exempted Activities) (Scottish Inshore and Offshore Regions) Amendment Order 2012).

Once actions to retrieve dropped object have been agreed with ICOL and MD-LOT, the Principal Contractor Construction Environmental Advisor shall complete the *Notice of Intention to Carry Out an Exempted Activity form* and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. The template can be found at: <a href="Notice+of+exempted+activity.pdf">Notice+of+exempted+activity.pdf</a> (www.gov.scot).

<u>At landfall</u>, should any plant or equipment be unable to be recovered from the water, it shall be reported by the Contractor to ICOL and FTNS immediately on 01324 498584 or by VHF channel 71.

#### 2.5.1.3 Infringement of an Archaeological Exclusion Zone

Where an AEZ has been infringed, the Contractor is required to contact ICOL as per incident reporting requirements (notification within 60 min) The infringement should be notified by the Contractor to Inch Cape MCC who will in turn inform the Environmental Lead. The Environmental Lead will contact the Inch Cape Archaeological Consultant to implement the next course of action, which may include the Archaeological Consultant reporting to the relevant regulatory body, Historic Environment Scotland (HES). See **Appendix B3** for further information.

#### 2.5.1.4 Wildlife injury or fatality / Marine species disturbances

In the event that a wildlife incident occurs, such as injury to a marine mammal, or an observed marine mammal, fish or bird mortality, the Contractor will notify ICOL MCC within 60 min. The MCC will then notify the Inch Cape Environmental Lead and ICOL ECoW in the first instance. ICOL will then report to MD-LOT no later than 72 hours of the incident. Please see **Appendix B4** for further information on the specific reporting requirements.



#### 2.5.1.5 Damage to static fishing gear and fisheries liaison issues

In the event of snagging or damaging fishing gear while transiting to and from site and / or on site these should be reported by the Contractor vessel to Inch Cape MCC within 60 min. The Contractor vessel will also notify the Contractor OFLO.

A written initial report with the basic details of the incident, photos, and actions taken must be submitted to the ICOL within 24 hours of the occurrence (See **Appendix B5** for further details).

Appendix B5 also contains several flow charts that provide the recommended actions to take by the Contractors vessel OFLOs and watch keepers in the event that they encounter fishing vessels, or fishing gear in the construction area.

#### 2.5.1.6 Environmental Non- Compliance reporting.

A non-compliance is breach of the following:

- Section 36 Consent
- A Marine Licence
- ICOL Offshore Consent Plan (e.g., this CEMP, PS, VMP, CaP, etc.)
- Contractor EMP
- Contractor procedure
- Environmental and / or Maritime Legislation

Reporting of non-compliances to MD-LOT will be done by the ICOL ECoW using the template provided in Appendix C- Inch Cape ECoW Non-Compliance Report Template.

If a non-compliance is discovered offshore, the observer shall report it to the ICOL Client Representative onboard who will initiate the communication and reporting within ICOL, otherwise, non-compliances can be reported to the ICOL ECoW or Environmental Lead directly by the Contractor or ICOL personnel. The ICOL ECoW and the Environmental Lead will agree and confirm if it is in fact a non-compliance with any of the above.

Information on the process and a flowchart to determine if the works can continue or not after the discovery of a non-compliance are described in Appendix B6.

Once a non-compliance has been identified, works continued or not, and the text of the non-compliance drafted and agreed, the ECoW will notify MD-LOT and corresponding stakeholders via email.



ICOL Environmental Lead will share the ECoW non-compliance notification with the Contractor and, considering the impact level of the non-compliance (Table 2), the ICOL Environmental Lead and Package personnel as required, will liaise with the Contractor to ensure that there is a root cause analysis conducted to establish the causes of the non-compliance and that suitable preventive and corrective actions are agreed in advance with the ICOL ECoW, Environmental Lead and MD-LOT as required. The agreed measures shall be put in place by the Contractor and ICOL to address the non-compliance as soon as reasonably practicable.

The Contractor shall produce a final non-compliance report which will contain as a minimum a root cause analysis, preventive, corrective actions and lessons learned identified including evidence for the close out of the actions.

Contractors should aim to address non-compliances as soon as reasonably practicable. Progress updates will be provided by the Principal Contractor Construction Environmental Advisor during the Environmental compliance meetings between the Contractor ICOL and the ICOL ECoW.

The ICOL ECoW will use the information provided by the Contractor to complete the ECoW Non-Compliance Close Out Report and issue it for review and approval to the ICOL Environmental Lead and ICOL Package Manager prior to the final submission to MD-LOT.

#### 2.6 Environmental Risk Assessment

Contractors shall ensure that environmental risks are taken into consideration in the risk assessment process for each element of the operations from mobilisation to demobilisation, and that suitable controls are put in place to mitigate the risk of the identified hazards impacting the environment.

The Principal Contractor's HIRA process shall ensure that the necessary controls and mitigation measures have been identified and the level of risk reviewed to ensure the activities are encompassed in the principle of ALARP. This also applies to the activities conducted by Contractors and Subcontractors.

Risk assessments where the specific environmental aspects of the project have not been fully or reasonably considered throughout the different work activities will not be accepted by Inch Cape.

#### 2.7 Environmental Competency Training and Awareness

Principal Contractors will provide suitable training to all their personnel, Contractor personnel and Subcontractor personnel covering the content of their EMPs and all applicable Inch Cape Consents (Consent Plans and related procedures). This training shall be specifically tailored to the different Contractors' teams and work scopes and contain the relevant information, so there is clarify on the



reporting requirements for the project. Lessons learned during the project shall be also included as appropriate.

The training shall be refreshed every 12 months or following any material change to works scopes, whichever is soonest. Principal Contractors should monitor the training effectiveness and provide evidence to ICOL.

The Contractors will maintain training records and provide copies of the records to ICOL, as required during readiness review sessions or audits / inspections.

In addition, each Contractor will ensure all personnel are made aware of the Contractor's compliance monitoring registers, to ensure evidence is provided of compliance to all ICOL Consents.

In collaboration with ICOL and the ICOL Offshore ECoW, environmental awareness campaigns on specific topics (e.g. chemical use, spills to sea, SF6, dropped objects, etc.) and Toolbox talks on environmental matters shall be scheduled by Contractors to be delivered regularly on their work sites during their participation on the works.

#### 2.8 Lessons Learned

Contractors shall conduct lessons learned sessions as required; either as part of or, in addition to an audit, inspection, or investigation, the following instances would trigger a lessons learned session:

- Following a particular Development milestone or phase.
- Following a Contractor or Subcontractor joining the project.
- Following a particular operation.
- Following an audit or inspection.
- Following an incident investigation.

ICOL will be in attendance as required.



# 3 Management of Environmental Aspects and Compliance Obligations

#### 3.1 Overview

The requirement to construct and operate the Development in accordance with the environmental management and mitigation measures identified in the Application and the Environmental Impact Assessment Report (EIAR¹) arise from specific requirements in the consents. This section of the CEMP (and the other referenced Consent Plans in Table 1.3) is set out in accordance with the commitments and mitigation measures made in the EIAR. This section splits out the key environmental aspects that relate to the construction of the Inch Cape Project and then details the overarching approach to management of related environmental impacts.

Each Principal Contractor is required to produce a project environmental aspects and impact register to demonstrate that the works managed by the Principal Contractor have identified and controlled environmental risks associated with their scope of works.

Similarly, each Principal Contractor is required to produce a project environmental compliance obligations register, to demonstrate relevant legal and other requirements (including the Inch Cape Consents and Consent Plans) have been identified and are being managed effectively as part of their work scope.

#### 3.2 Marine Species

Inch Cape must ensure that all reasonable, appropriate and practicable steps are taken at all times to avoid or minimise damage to the Scottish marine area caused as a result of the undertaking of the Licenced Activities.

The environmental surveys completed for the Environmental Statement (ES) and EIAR identified environmental sensitivities (seabirds, marine mammals, benthic habitats, etc.) and the appropriate management and mitigation commitments to be implemented as part of the consent applications and reflected in the consent's conditions.

The marine mammals that are usually found / have been sighted in the area or close to the development area are: Harbour porpoise, bottlenose dolphin, minke whale, white sided dolphin, white-

IC02-INT-EC-OFC-INC-PLA-001 / Revision 1 Uncontrolled if printed

<sup>&</sup>lt;sup>1</sup> In 2013 an Environmental Statement (ES) was produced for the original design of the Inch Cape Offshore Wind Farm. This was subsequently updated in 2018 with the production of an updated EIAR to enable the use of progressions in technology following the original consent, through a reduction on turbine numbers (fewer turbines with larger generating capacity), and reduction in associated cabling (inter-array and export cables) in order to maximise efficiencies whilst minimising environmental impacts. The EIAR updated the 2013 ES and where impacts were predicted to be less than those already assessed, a new assessment was not undertaken as the conclusions drawn in the original 2013 ES remained valid.



beaked dolphin, common dolphin, Risso's dolphin, killer whale, long-finned pilot whale, fin whale, humpback and sei whale.

There are a number of seabird species likely to be present in the Inch Cape Project Area due to the vicinity of several SPAs designated for seabirds amongst other features. According to Inch Cape studies these include gannet, guillemot, kittiwake, puffin, razorbill, fulmar, little oak and artic tern.

Monitoring plans are detailed in the Project Environmental Monitoring Programme (PEMP) (ICO2-INT-EC-OFC-017-INC-PLA-001), which presents measures to monitor any environmental effects of the Inch Cape Project, including pre-construction, during construction and post-construction surveys.

The PEMP is a live document and will be amended as the project progresses and further monitoring data becomes available. The results of those surveys will be considered in terms of the environmental sensitivities identified and where necessary consideration will be given to the need for additional environmental mitigation to be developed in discussion with MD-LOT and FTRAG.

ICOL will submit written reports and associated raw and processed data of such monitoring or data collection to the Scottish Ministers at timescales to be determined by them.

In the event that a wildlife incident occurs, such as injury to a marine mammal, or an observed fish or bird mortality, the Contractor will notify Inch Cape MCC in the first instance as detailed in section 2.5.

The requirement to manage vessel operations to take account of potential disturbance to marine mammals and birds is set out in the Offshore Piling Strategy (PS) (ICO2-INT-EC-OFC-005-INC-STR-001) and Vessel Management Plan and Navigation Safety Plan (VMNSP) (ICO2-INT-EC-OFC-008-INC-PLA-001). All vessels will be required to adhere to the provisions of the **Scottish Marine Wildlife Watching Code** (SMWWC) (SNH, 20172) to ensure best practice when operating around marine mammals.

If required, the Principal Contractor will apply for a European Protected Species Licence (EPS) or as agreed otherwise with ICOL.

#### 3.2.1 Noise Registry

Underwater noise from the construction activities can affect marine species in a variety of ways. ICOL will complete and submit a proposed activity form to the Joint Nature Conservation Committee (JNCC) in the online UK Marine Noise Registry (MNR) for all aspects of the works that will produce loud, low to medium frequency (10 Hz-10 kHz) impulsive noise no later than seven days prior to

<sup>&</sup>lt;sup>2</sup> SNH (2017a). The Scottish Marine Wildlife Watching Code (SMWWC) - Part 1. SNH Guidance. Available from: <a href="https://www.nature.scot/scottish-marine-wildlife-watching-code-smwwc-part-1">https://www.nature.scot/scottish-marine-wildlife-watching-code-smwwc-part-1</a>. SNH (2017b). A Guide to Best Practice for Watching Marine Wildlife (SMWWC) Part 2. SNH Guidance. Available from: <a href="https://www.nature.scot/guide-best-practice-watching-marine-wildlife-smwwc-part-2">https://www.nature.scot/guide-best-practice-watching-marine-wildlife-smwwc-part-2</a>).



Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, ICOL will complete and submit a new proposed activity form no later than seven days prior to the Commencement of the Works.

ICOL will complete and submit a close-out report for all aspects of the Works that produced loud, low to medium frequency (10 Hz-10 kHz) impulsive noise in the online Noise Registry no later than 12 weeks after the Completion of the (noisy) works.

#### 3.2.2 Monitoring of Marine Mammals

Inch Cape will appoint an MMO, who must as a minimum maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy activities. These records will be provided to the ICOL ECoW on a regular basis (to be agreed with the ECoW). The ICOL ECoW will provide these records to the Licensing Authority withing 6 months of the commencement of the works. Contractors and Subcontractors shall accommodate an MMO on their vessels as required.

#### 3.3 Marine Archaeology

Contractors are not permitted to conduct any activities that may disturb the seabed within Inch Cape project Archaeological Exclusion Zones (AEZs). This must be communicated by the Principal Contractor to all relevant Contractor and Subcontractor personnel. ICOL will provide the Principal Contractors with AEZ shapefiles and it is the expectation that these are plotted on the navigation systems of the vessels working in the project.

AEZs are required for all known sites of high, or medium potential where the location of the archaeological receptor is known, or where the receptor has been at one time identified by geophysical/diver/ROV surveys. AEZs are formed by establishing a buffer around the known extents of wreck sites, or around geophysical anomalies for which the available evidence suggests that there could be archaeological material present on the seabed. AEZs are site-specific depending on the extent of the site or wreckage and are based on their archaeological potential.

Where an AEZ has been infringed, the Contractor is required to contact ICOL as per incident reporting requirements detailed earlier in section 2.5 of this document.

The procedures to be followed on **discovering any marine archaeology during construction**, of the Inch Cape Project, is set out in the **Protocol for Archaeological Discoveries (PAD)** (IC02-INT-EC-OFC-021-INC-PLA-001). A summary of the actions / notifications to conduct is also included in **Appendix B3**.



#### 3.4 Unexploded Ordnance (UXO)

An unexploded ordnance (UXO) survey and clearance programme will be completed prior to the commencement of construction.

The risk of discovering previously unidentified UXOs will be reduced to as low as reasonably possible (ALARP). However, in the event that a UXO is discovered during the construction works, the Contractor will inform the Principal Contractor immediately who will in turn contact Inch Cape MCC.

In the unlikely event of needing to detonate a UXO during construction, MD-LOT will be consulted (a separate Marine Licence and EPS Licence will be sought, as required by ICOL) and the Joint Nature Conservation Committee (JNCC) guidelines for mitigating impact upon marine mammals will be followed.

ICOL will consult with, and engage, a recognised, competent UXO disposal company for the safe handling and disposal of any UXO.

#### 3.5 Other Marine Users

ICOL's approaches to manage and mitigate potential impacts on other marine users are provided in the following Consent Plans:

- Vessel Management and Navigational Safety Plan (VMNSP)
- Construction Method Statement (CMS)
- Lighting and Marking Plan (LMP)
- Fisheries Mitigation and Management Strategy (FMMS)

Specifically, measures covered by these plans include:

- Adoption of safety zones.
- Appropriate notification of construction activities to other marine users.
- Appropriate charting of the OWF and OfTI.
- Appropriate marking and lighting of the Wind Farm and OfTI.
- A clear process of marine coordination of all vessels and vessel activity.
- Appropriate marking and lighting of vessels.
- Vessel transit planning, commercial fisheries relations and management of fisheries



interactions.

In line with other major construction projects, ICOL provide a 24-hour customer service helpline for members of the public who may have queries about the offshore or onshore elements of this construction work. The helpline number is 0800 2545091.

#### 3.6 Marine Pollution Prevention and Contingency Planning

A Marine Pollution Contingency Plan (MPCP), ICOL MPCP, has been prepared in response to the requirements of the Consents as described in section 1.3 of this document, and it is included as Appendix E of this document.

The worst-case pollution event associated with the Inch Cape Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Volumes of chemicals utilised in the project will be relatively small. Chemical spills will be classified according to the characteristics of the chemical and the behaviour exhibited by the chemical when released into the marine environment (i.e. whether the chemical evaporates, floats on the surface of the water, dissolves in the water, or sinks to the seabed).

ICOL Marine Pollution Contingency Plan requires that Principal **Contractors produce their own MPCP** that is complaint with ICOL's in advance of any works.

In the event of a pollution incident, construction personnel should refer immediately to their MPCP for details on appropriate response procedures.

Detailed plans for the prevention of pollution incidents on-site, and management of any incidents that may occur shall be presented in the MPCP.

For spill response, Principal Contractors (or ICOL, this is still to be determined) will be responsible for co-ordinating Tier 2 and 3 oil spill response incidents using **suitably qualified and experienced oil spill response subcontractors.** The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not been decided yet. This key information will be included in the next revision of this document.

It is recommended that Contractors include these arrangements within their vessel specific bridging documents.

#### 3.7 Emergency Response



Inch Cape Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002) references industry good practice outlined in the G+ Integrated Offshore Emergency Response (IOER-R) good practice guidelines for offshore renewable energy developments. The plan describes how the project shall respond to a serious incident or other event that has already, or has the potential, to result in a major threat to life, the environment, infrastructure, or reputation of Inch Cape Offshore Limited. This includes anyone associated with ICOL including employees, contractors, sub-contractors, visitors, or members of the public that may be affected by the adverse situation.

Its intention and priority is to ensure that people are kept safe whilst responding to an emergency situation and that the environment is protected.

This Plan specifies the minimum requirements expected of any ERP, that is to be produced by appointed Principal Contractors, Contractors and Subcontractors, and provide guidance on the interaction and communications between persons at the scene of the incident.

The Inch Cape Emergency Response Co-operation Plan (ERCoP) (IC02-INT-EC-OFC-011-INC-PLA-001) is a bridging document between Inch Cape and the Maritime Coastguard Agency (MCA) and it is intended to ensure cooperation with the MCA in the event of an emergency by detailing the design of the Inch Cape Project, describing the actions to be taken in an emergency during both construction and operation of the Inch Cape Project, and the resources available to support those actions, and providing emergency contact details.

#### 3.8 Chemical usage

The Inch Cape consents place several requirements and obligations that need to be complied with. The below provides guidance, and the responsibilities for ICOL, the ECoW and Contractors to comply with this condition.

Inch Cape shall seek **prior written approval** from the Licensing Authority for any <u>chemicals in an</u> open system which are to be utilised in the construction, operation and maintenance of the Works.

MD-LOT considers an open system to be anything that through its normal operation comes into contact with the marine environment (examples of chemicals used in open systems are: cementing chemicals, dyes and additives, biocides and corrosion inhibitors (monopile installation) chemicals discharged into the sea via the grout wash water, hydraulic fluids from actuating subsea valves, guano cleaning products directly washed out into the sea, greases/dope directly applied onto the surface of equipment, cables or materials that goes into the sea, etc.).

Requests for approval to use chemicals in open systems must be submitted by ICOL/ECoW in writing to MD-LOT no later than one month prior to its intended use or such other period as agreed by MD-LOT.



If the proposed chemical is on the OCNS list, the approval request must include:

- the chemical name
- the volume or quantity to be used,
- the OCNS list grouping or rank and,
- the proposed frequency of use.

If the proposed chemical is <u>not</u> on the OCNS list, the approval request must include:

- details of chemical to be used, including safety data sheet,
- depth and current at the Site,
- quantities or volumes and,
- the proposed frequency of use.

ICOL and Contractors must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority.

The deliberate discharge of surplus or waste chemicals is not allowed, and the chemicals should be returned to shore for disposal.

Contractors shall monitor chemical use offshore and advice ICOL of any updates of their usage (and chemical list) so the ECoW can conduct the corresponding requests for approval or notification to MD-LOT that may be required as the works progresses, and new Contractors arrive.

Additionally, ICOL must **notify** the Licensing Authority the types of <u>chemicals</u> to be used <u>in a closed</u> <u>containment system</u> **prior to use**.

MD-LOT considers a closed system to be anything that through its normal operation does not come into contact with the marine environment. With the exception of chemicals used on vessels and ROVs, every other chemical must be notified. This is a non-exhaustive list of the types of chemicals that fall under this category:

- Chemicals to be used within the internal systems of sub-sea tools deployed into the water (e.g. in trenching vehicles, subsea pumps, cutting tools, pile grippers, etc.).
- Chemicals used within the internal systems of tools used over the water (e.g. blade lifting tool, nacelle/tower lifting tool, piling hammers, etc.).
- Chemicals contained in fixed equipment inside the offshore structures (OSP/FOU/TP/WTG) (swich gear, cooling systems, etc.).



- Chemicals contained inside construction equipment that is used outdoors on the decks of the offshore structures (HPUs, generators, etc.)
- Completion chemicals (paints, primers, thinners, corrosion removers, etc.).

The following <u>chemicals are considered exempted and don't need to be reported</u> and therefore don't need to be included by the Contractors in their chemical lists <u>as in a closed containment system</u>:

- All vessel chemicals (including those used in walk to work systems and ROVs).
- Products used within domestic accommodation areas (e.g. cleaning products used on OSP, TPs).
- Fuels and lubricants.
- Hydraulic fluids used in cranes and other permanent machinery (OSP, WTGs, TPs).
- Chemicals used to prevent machinery or installation corrosion.
- Products classified as coatings that are used to protect internal and external surfaces of coiled tubing from corrosion and erosion damage.
- Products classified as "locking" compounds that are used as a material to bond casing threads or fittings.
- Welding gases
- Firefighting chemicals.

The deliberate discharge of surplus or waste chemicals is not allowed, and the chemicals should be returned to shore for disposal.

The ECoW will issue the notification to MD-LOT of chemicals used in closed system within 1 week prior to use offshore.

ICOL will provide the Principal Contractors with a template (Principal Contractor Chemical List) to populate all the required information described above for the chemicals to be used in an open system, and the types of chemicals (trade name as per SDS) to be used in a closed contained systems.

Contractors should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported as "spills to sea" as described in section 2.5 of this document.



#### 3.9 Fuel Oil and Vessel Lubricating Fluids

Fuel oil is not considered 'a chemical' requiring to be noted on each Principal Contractor's Chemical List as this is under separate regulation. The main types of fuel oil to be used by the construction/commissioning vessels will be Marine Gas Oil (MGO) and Intermediate Fuel Oil (IFO).

Vessel bunkering is to be conducted at port only whilst engaged in the Inch Cape Project. **Offshore fuel bunkering will not be permitted unless otherwise agreed in advance by ICOL personnel including the ICOL Environmental Lead, ECoW and Lead Marine Co-ordination.** Offshore fuel bunkering if approved will be considered a contingency measure only.

Where offshore fuel bunkering has been agreed in advance with ICOL, Ship to Ship Transfer regulations exemption is required by the Principal Contractor (or their Contractor or Subcontractor) with MCA. This is typically a request for an exemption to the MCA via letter (email).

Information required by the MCA from the Principal Contractor (or their Contractor or Subcontractor) to consider the exemption will include a bunker plan and procedure arrangements. It will also include additional precautions required by MCA such as fuel bunker hose certification and regular inspections, bunker station emergency stop, trained SOPEP team, offshore response contractors providing support during bunkering and details of the fuel oil provider(s) to be used and a summary of their precautions, bunkering procedures and experience/certifications.

Exact arrangements must be confirmed by the Contractor with MCA and approval is required by MCA sufficiently in advance of offshore fuel bunkering taking place. This approval must be confirmed to ICOL prior to offshore fuel bunkering taking place. On-going notification to MCA is required prior to each offshore fuel bunkering taking place and the Inch Cape Environmental Lead, ICOL Offshore ECoW and Marine Co-ordination Manager must be copied into communications with the MCA.

It is an expectation from ICOL that a spill to the sea drill using the Principal Contractor's MPCP is conducted prior to each offshore bunkering operation.

Fuel oil management measures required by each Contractor (and/or their subcontractors) must be in compliance with MARPOL Annex I (including fuel oil management, machinery space discharges and record keeping) Inch Cape MPCP response measures and MARPOL Annex VI (including fuel efficiency and air pollution control measures) and also with corresponding UK merchant shipping regulations. The percentage fuel sulphur content to be used on vessels by Contractor (and/or their subcontractors) must be compliant with up-to-date North Sea location specific percentage sulphur requirements required by law.



#### 3.10 Bunding and Storage

In addition to the above, and to ensure pollution prevention is undertaken, all Contractors and Subcontractors shall ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works, plant and equipment into the marine environment. Requirements for bunding and storage shall be written into the Method Statements and Risk Assessments, and the Contractors' EMPs.

Where spillage does take place, Contractors are required to follow specific spill prevention and response measures detailed within their Marine Pollution Contingency Plan and report it to the authorities and ICOL as detailed within the ICOL MPCP (or section 2.5 of this document).

#### 3.11 Marine Invasive Non-Native Species

To prevent the introduction of invasive non-native species (INNS), Inch Cape will:

- Require that all Contractors adopt the relevant and most current legislative requirements and guidelines at the time of carrying out their works.
- Require Contractors produce EMPs setting out in detail procedures to prevent the introduction of INNS.

The most current legislation and guidance relevant to the control of INNS are shown on the table below

Table 3.1 Legislation and guidelines relating to measures to prevent the introduction of INNS

Legislation / Guidelines	Summary	Relevant Requirement
International Convention for the Control and	The objective is to prevent, minimise and ultimately eliminate the transfer of harmful aquatic organisms and pathogens though control and management of ships' ballast water and	Ballast Water Management Plan
for the Control and Management of Ships' Ballast Water and Sediments (BWM) – adopted 2004	sediments. Under this Convention, all ships of 400 gross tons (gt) and above will be required to have on board an approved Ballast Water Management Plan and a Ballast Water Record	Ballast Water Record Book
	Book, and to be surveyed and issued with an International Ballast Water Management Certificate.	International Ballast Water Management Certificate
The Merchant Shipping (Anti-Fouling Systems) Regulations 2009	Prohibits the use of harmful organotin compounds in antifouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems and provides the UK legal framework for enforcement of Regulation (EC) 782/2003 on the prohibition of organotin compounds on ships.	Anti-Fouling System Certificate / Declaration
Resolution Mepc.207(62) 2011 Guidelines For The Control And Management Of Ships	The Guidelines are intended to provide useful recommendations on general measures to minimize the risks associated with biofouling for all types of ships.	General guidance on minimising biofouling risks (recommends to implement a Biofouling



Legislation / Guidelines Summary Relevant Requirement

Biofouling To Minimise
The Transfer Of Invasive
Aquatic Species

Management Plan and
Biofouling Record Book)

Specific measures that ICOL will require are adopted by all Contractors (and their Subcontractors) will include, but not be limited to:

- A requirement for all vessels of 400 gross tonnage (gt) and above to be in possession of a current international Anti-fouling System (AFS) Certificate and that it is made available for review.
- A requirement for all vessels of 24m or more in length (but less than 400gt) to carry a
  Declaration on AFS signed by the owner or authorised agent accompanied by appropriate
  documentation.
- A requirement for the details of all ship hull inspections and biofouling management measures be documented by the Contractors (and their Subcontractors) and, where applicable, recorded in the Planned Maintenance System.
- A requirement for all submersible/immiscible equipment such as ROVs and any other subsea
  equipment to be subject to pre-use and post-use checks including checks for the presence
  of marine growth. All equipment will be required to be free of marine growth prior to
  mobilisation to the Inch Cape Project.
- A requirement for all vessels to be compliant (where applicable) with the International Convention for the Control and Management of Ships' Ballast Water and Sediments 2004.
- A requirement, where relevant, for the management of ballast water in accordance with an
  approved Ballast Water and Sediments Management Plan and records of such management
  in a Ballast Water Record Book in accordance with the provisions of the Convention.
- A requirement to meet IMO timescales for BWM compliant ballast water treatment systems to be installed on relevant vessels (in line with vessel types and their International Oil Pollution Prevention re-certification dates).

In addition, Contractors (and their Subcontractors) are required to consider the recommendations of Resolution MEPC.207(62) 2011 guidelines for the control and management of ship's biofouling to minimise the transfer of invasive aquatic species including, for example, the implementation of a Biofouling Management Plan outlining the biofouling management measures to be undertaken on vessels.



Further information can be found on Check Dry Clean on the GB Non-Native Species Secretariat (NNSS) website, available at: <a href="http://www.nonnativespecies.org/checkcleandry/">http://www.nonnativespecies.org/checkcleandry/</a>

#### 3.12 Drill Cuttings

Seabed drilling may be required as an emergency measure to make foundation installation safe if pile driving cannot be completed as planned, however, as required, if oil-based drilling muds are utilised they will be contained within a zero-discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the site need not be removed from the seabed.

#### 3.13 Environmental Protection

ICOL must ensure that, where practicable, all substances and objects deposited during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.

ICOL must ensure that all reasonable, appropriate and practicable steps are taken at all times to minimise damage to the Scottish marine area caused as a result of the undertaking of the of the Works. ICOL and Contractors must ensure that all personnel adhere to the SMWWC where appropriate during all construction activities undertaken for the Works.

The Cable Plan - Export Cable (CaP - EC) (IC02-INT-EC-OFC-012-INC-PLA-002) and Cable Plan - Inter array Cables (CaP - IAC) (IC02-INT-EC-OFC-012-INC-PLA-001) contain information with regards the different surveys conducted (including benthic and Annex 1 Habitats) and how the findings have been considered for the design of the routes and the effects of cable installation during construction and further operation of the Development.

<u>At landfall</u> the Contractor (and Subcontractors) shall ensure that appropriate steps are taken to minimise damage to the beach and foreshore by the works. On completion of the works, the Contractor shall ensure that the working area is free from any debris and clear of any obstruction which is likely to hinder fishing operations or be dangerous to navigation.

#### 3.14 Waste Management

All Contractors shall ensure that any debris or waste material placed on the seabed during the construction of the Works is removed from the Site, unless agreed otherwise by MD-LOT, as soon as is reasonably practicable, for disposal at a location approved by SEPA or such other relevant authority if disposal is to take place out with Scotland.



ICOL require that Principal Contractors, for the construction of the Inch Cape Project, shall produce a Waste Management Plan, that details all waste management procedures for their activities, details of expected waste arisings and proposed procedures for waste management. This is in addition to the Garbage Management Plan of the vessels which usually don't not cover the "project "operational waste.

In addition, the following will be included in the Waste Management Plan, as the Contractors' and Subcontractors' responsibilities:

- Meet all relevant legislative requirements and obtain whatever additional permits and licences are necessary in relation to waste management.
- Handle waste materials and refuse so that it causes the least practicable damage and disturbance.
- Place all waste in suitably labelled and secure containers.
- Reduce waste to landfill through waste elimination, reduction and recycling where feasible.
   (Details of the types and quantities of recyclable materials such as TP, tower, blade and nacelle covers, etc. returned to the factory for reuse/recycle should be captured).
- Contain, recover and bring all relevant waste back to shore and dispose of such waste in accordance with the legal waste management framework.
- Transfer the waste or refuse only conducted by licenced waste carriers and waste treatment and waste disposal is conducted by licenced and permitted waste management companies, in compliance with applicable waste legislation.
- Retain all required waste management paperwork such as transfer notes and consignment notes for review.
- Be compliant with and use the current version of Transfrontier Shipment of Waste Regulations where ICOL waste is being exported by Contractors (or their subcontractors).
   Export of waste will also be in line with the principles of the Basel Convention of 1989, which was agreed internationally to avoid hazardous waste being unfairly exported to developing countries.
- All qualifying vessels must demonstrate compliance with MARPOL Annex V (and equivalent current UK merchant shipping regulations) for waste management generally and MARPOL Annex IV (and equivalent current UK merchant shipping regulations) for sewage waste specifically.
- Incineration offshore is not permitted. Contractors wishing to incinerate non-hazardous waste



produced offshore will have to apply for an exemption under The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011.

Incineration in port is not permitted.

The Principal Contractor will provide the Waste Management Plan to ICOL for acceptance prior to the commencement of works. The Contractor Waste Management Plan may form part of the Contractor EMP.

#### 3.15 Commercial Fisheries

As described in section 2.3.11, ICOL has appointed a Fisheries Liaison Officer (FLO) to:

- Establish and maintain effective communications between Inch Cape, any Contractors and Subcontractors, fishers and other users of the sea concerning the overall project and any amendments to the Construction Method Statements and site environmental procedures.
- Provide information relating to the safe operation of fishing activity on the Project site.
- Ensure that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the sea.

Additionally, **Principal Contractors will appoint Offshore Fisheries Liaison Officers (OFLOs)** on the main installation / construction support vessels (as required to be agreed with ICOL) to act as a point of communications with the fishing interests at sea and ICOL's FLO whilst these are performing construction works in the Project Area.

The Inch Cape Fisheries Management and Mitigation Strategy (FMMS) (ICOL-INT-EC-OFC-018-INC-STR-002) addresses the specific requirements of the Consent conditions and will be implemented during construction with a view to facilitating co-existence between the Inch Cape Project and commercial fishing and to mitigating impacts on relevant fishing interests.

#### 3.16 Seabed Deposits

Part 2 of the Marine Licences detail the quantities of substances and objects and the construction materials that Inch Cape is authorised to deposit on the seabed in connection with the Works. Additionally, the Marine Licence require that, where practicable, all substances and objects deposited during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it



supports or human health.

Principal Contractors, prior to the commencement of the work will provide ICOL Consents Team with the details of any substances and objects and calculations of the estimated construction material to be used on their scope of work.

<u>At landfall</u>, the Contractor must remove the materials from below the level of Mean High Water Springs, or make such alterations as advised by the Licensing Authority, within one month of notice being given by the Licensing Authority at any time it is considered necessary or advisable for the safety of navigation, and not replaced without further approval by the Licensing Authority. Equally, Forth Ports shall have the right to require modification, addition or alteration to the works, if in their opinion such action is necessary.

The landfall Contractor shall ensure that prior to the finalisation of the works, all temporary structures are removed and placed above Mean High Water Springs.

Upon completion of the works at landfall, Inch Cape will submit a written report regarding the materials used during the works to the Licensing Authority. The written report must be submitted on completion of the works and on the forms provided by the Licensing Authority no later than 31 October 2029.

#### 3.16.1 Transportation Audit Reports (TAR)

The TAR is a reporting requirement under the Marine Licence(s) condition that keeps track of what has been licenced to be deposited on the seabed. Anything outside of that is an unintentional dropped object that is reported separately as described in section 2.5.

The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of the licences) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.

Each Principal Contractor is required to collect all the required information for the TAR and will issue these to the ICOL Offshore Consents Team / Environmental Lead on a monthly basis.

The ICOL Consents Team will compile all the information for the period and will then submit the TAR to MD-LOT within 14 days from the end of each month. The ECoW will sign it off prior to submission.

The TAR will include information on the nature and quantity of all substances and objects deposited and materials used in construction in that calendar month.

The TAR template will be provided by ICOL prior to the commencement of construction.



#### 3.16.2 Dropped Objects

The requirement to record, notify and potentially recover objects lost or accidentally deposited on the seabed during construction works arises from specific requirements in the consents. Section 2.5 describes the process to report such incidents, including procedures for communicating deposits made under circumstances of Force Majeure.

Every reasonable measure should be taken to immediately retrieve dropped objects where this is considered reasonably practicable (a Marine Licence is not required for such recovery under the Marine Licensing (Exempted Activities) (Scottish Inshore and Offshore Regions) Amendment Order 2012). MD-LOT may deem it necessary to carry out a side scan survey to locate the substances or objects and may require the deposits to be removed by ICOL/ Contractor. The results of any such surveys must be analysed as soon as reasonably practicable and the proposed remedial action and proposals for recovery of the Dropped Object if appropriate must be provided to MD-LOT.

Dropped objects can present a significant hazard to other sea users and the marine environment. Notification of dropped objects enables MD-LOT, in consultation with other relevant stakeholders, to decide what action should be taken and to allow notification of other sea users of any navigational hazards.

Once actions to retrieve dropped object have been determined, the Principal Contractor Construction Environmental Advisor shall complete the *Notice of Intention to Carry Out an Exempted Activity form* and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. This form can be obtained from Notice+of+exempted+activity.pdf (www.gov.scot).

Each Contractor should have its own process for ensuring equipment and materials are adequately stored and controlled and that personnel are adequately trained and briefed on avoiding dropped objects or accidental deposits.

#### 3.16.3 Dropped Object Prevention

Consideration should be given to minimising wherever reasonably practicable the potential for objects to be dropped or otherwise accidentally deposited. Each Contractor (and their Subcontractors) should have its own process for ensuring equipment and materials are adequately stored and controlled and personnel are adequately trained and briefed on avoiding dropped objects or accidental deposits. These processes should be highlighted within the Contractor's EMP.

It is ICOL expectation that a dropped object prevention and reporting awareness campaign is conducted by the Contractors during the first six months of the commencement of the works.



#### 3.17 Fluorinated greenhouse gases

Contractors using equipment which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases (F-Gas Regulation) or mixtures containing any of those substances) must take precautions to prevent the unintentional release ('leakage') of those gases.

In order to comply with the Marine Licence(s) Condition, ICOL will require all Contractors to take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases. Where leakage of fluorinated greenhouse gases is detected, Contractors shall ensure that the equipment is repaired without undue delay.

All equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO2 equivalent or more and not contained in foams will be checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks will be kept in accordance with Article 6 of the F-Gas Regulation. These records will be submitted to MD-LOT annually and immediately in the event of discovery of leakage.

Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, this will be undertaken by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, MD-LOT will be informed of the date of discovery, date of repair and date of inspection.

Please use this link: <u>Calculate the carbon dioxide equivalent quantity of an F gas - GOV.UK</u> (www.gov.uk).



#### 3.18 Other

Where Contractors (and or/their subcontractors) have radioactive sources e.g. for measurement or for other reasons to be used offshore or at port, this must be declared to ICOL in advance of use. The relevant Scottish Environment Protection Agency (SEPA) registration or licence (depending on type) will be required to be provided by each Contractor to ICOL for each source and details of control measures will be reviewed by ICOL prior to approval.

If dredging is required as a contingency for any of the construction work a dredging licence application will be made by the Principal Contractor.

#### 3.19 Compliance with the Environmental Impact Assessment Report (EIAR)

The requirement to construct and operate the Development in accordance with the environmental management and mitigation measures identified in the Application arise from specific requirements in the consents.

In 2013 an ES was produced for the original design of the Inch Cape Offshore Wind Farm. This was subsequently updated in 2018 with the production of an updated EIAR to enable the use of progressions in technology following the original consent, through a reduction on turbine numbers (fewer turbines with larger generating capacity), and reduction in associated cabling (inter-array and export cables) in order to maximise efficiencies whilst minimising environmental impacts. The EIAR updated the 2013 ES and where impacts were predicted to be less than those already assessed, a new assessment was not undertaken as the conclusions drawn in the original 2013 ES remained valid.

The consents require the works be constructed in accordance with the licence, the application and supporting Environmental Impact Assessment Report (EAIR) and related documents

This CEMP, and the remaining consent plans have been put together considering the commitments made on the EIAR and corresponding consent conditions.



### 4 Performance Monitoring

#### 4.1 ECoW Compliance Monitoring and Reporting

Compliance reporting to MD-LOT will be undertaken using the template Inch Cape ECoW Monthly Compliance Report (Appendix D).

MD-LOT may also undertake monitoring of compliance with the Inch Cape Consents and approved Consent Plans through periodic site inspections. With appropriate notification, Inch Cape will facilitate access to all offshore construction activities for this purpose.

Table 4.1 lists the sources of data which may be utilised (but not limited to) by the Inch Cape ECoW in order to monitor compliance with the Consents and Consent Plans.

Table 4.1 Proposed routine Inch Cape construction environmental reporting.

Source	Description	Responsibility	Frequency		
Daily Progress Reports (DPRs)	Log of daily activities covering the previous 24 hours, including records of any environmental incidents/observations/drills/inspections	All vessels	Daily		
Daily activity logs	Log of daily activities on Inch Cape directly chartered vessels covering the previous 24 hours, including records of any environmental incidents/observations	Where applicable, Inch Cape directly chartered vessels	Daily		
Daily progress emails	Email from offshore Inch Cape personnel updating Inch Cape construction team on progress (including tracking progress, details of incidents/observations, emerging issues/risks etc.)	Client Representatives	Daily (occasionally one every 12 hours)		
Marine coordination update	Daily call to discuss safety, health and environmental incidents, activities during the previous 24 hours and a look ahead to activities taking place over the following 24 hours. Interaction with fisheries shall also be covered.	Marine Coordinator	Daily		
Marine coordination update minutes	Written record of daily marine coordination updates including progress diagrams and vessel reports	Marine Coordinator	Daily		



Source	Description	Responsibility	Frequency
FLO activity summary report	Log of FLO activities and spreadsheet monitoring compliance with the FMMS	FLO	Monthly
Incident and near miss notifications	Notifications via email from the Contractors, followed up with incident report updates and action closure.	All vessels	As and when they
Vessel walkdown inspections	Vessel walkdowns inspections will be conducted before and during mobilization, and while doing work offshore. General aspects to be checked include:  Documentation Bunkering Ballast water Waste Chemicals and oils Deposits and dropped objects INNS and anti-fouling Vessel personnel awareness Incident reporting Findings and recommendations to be discussed with and actioned by the Contractor. Inch Cape will track findings/recommendations until satisfactory close-out.	ICOL Environmental Lead, HSE Lead, Offshore ECoW.  Principal Contractors shall facilitate access to the vessels prior reasonable notification.	Prior to vessel mobilisation  During works depending or duration and nature of activity
Marine Pollution Contingency Plan drills	Monitoring of MPCP drills for relevant vessels depending on spill risk. These MPCP drills should be conducted by the Contractor prior to vessel mobilisation or prior to fuel being bunkered. Note this is in addition to vessel SOPEP drills required under MARPOL	ICOL Environmental Lead	Prior to vessel mobilisation Prior to fuel bunkering Periodically, to be agreed with Contractors
Contractor environment meetings	Weekly meetings chaired by the Contractor Environment Advisor where items such as progress and environmental compliance with consents/licenses, etc. are discussed	CEA, ICOL Environmental Lead and Offshore ECoW	Weekly or as agreed with the EM



Monitoring of any environmental effects of the Inch Cape Project is set out in the Project Environmental Monitoring Programme (PEMP), as required by the Section 36 and Marine Licences conditions, and covers the preconstruction, construction and operational phases. The primary focus of the preconstruction monitoring is on seabirds and marine mammals. The delivery of monitoring requirements detailed in the PEMP will be ICOL's responsibility throughout construction.

#### 4.2 Inch Cape Compliance Schedules

The Inch Cape Environmental Lead will develop specific compliance schedules for each Principal Contractor to help Inch Cape and the Contractors keep track of the different deadlines for deliverables submission, key notifications to be made, planned audits / inspections, MPCP drills, etc. These schedules will be used on the weekly environmental compliance meetings to be held with the Principal Contractors, package personnel and ICOL ECoW.

The updated compliance schedules will be issued to the PC after each meeting.

#### 4.3 Audits and Inspections

Environmental management audits will be conducted by Inch Cape personnel on key packages / work scopes as deemed necessary based on risk. These audits will be agreed and arranged with the different Principal Contractors, Contractors (and Subcontractors) as required and entered in the ICOL HSE Audit Schedule.

Vessel walkdown inspections to establish the level of environmental and consent compliance readiness prior to or during mobilisation, and to monitor compliance with the consents during works shall be conducted by the ICOL Environmental Lead and / or ICOL ECoW on the main installation vessels throughout the duration of the project. The periodicity of the inspections while vessels are conducting the works will be agreed with the Principal Contractor based on previous inspection findings, environmental performance of the vessel, duration of the scope, previous audits conducted by the Contractor or Principal Contractor, etc., in any case, the main construction vessels will be inspected by ICOL and or ICOL ECoW at least once every 12 months.

The ICOL audit / inspection reports will be issued to Contractors within 2 weeks of the date of the audit/inspection. The reports will be reviewed and approved by the Package Manager / Construction Manager prior to issue to the contractors.

Principal Contractors will conduct their own Inch Cape environmental management and consent compliance audits as per their own management systems and there is an expectation that they will conduct their own vessel inspections (including Contractors and Subcontractor vessels) prior to



mobilisation and during the works. Some of these inspections could be conducted jointly with ICOL and ICOL ECoW.

Principal Contractors shall agree with ICOL and ICOL ECoW the timeframes and the extent of any corrective and preventive measures to be implemented to address any non-compliances identified.

Principal Contractors shall provide Inch Cape with their Environmental Audit / Inspection plan within 4 weeks of contract signature the project.

Contractors shall provide Inch Cape with the following pre-audit / inspection information as a minimum:

- Vessel CMID or equivalent
- HSE Statistics: 3-5 years (vessel and construction activities)
- Latest Vessel / Construction Activities Environmental Audit

MD-LOT or any authorised person may also undertake monitoring of compliance with the Inch Cape Consents and approved Consent Plans through site inspections. With appropriate notification, Inch Cape and the Contractors will facilitate access to all offshore construction vessel / activities for this purpose.

#### 4.4 Environmental Workbook

The ICOL Environmental Lead will maintain a live workbook to register the audits, inspections, incidents, non-compliances, including the corresponding action tracker. The ICOL ECoW will use this workbook as a source of information for generating the ECoW Monthly Compliance reports to be submitted to the MD-LOT and other stakeholders. It will also be used to provide regular updates on compliance and incident close out to Project Management.



### 5 Inch Cape References

#### Table 5.1 Consent Plans and other Key documents

Document Number	Title
IC02-INT-EC-OFC-004-INC-PRG-001	Construction Programme (CoP)
ICO2-INT-EC-OFC-004-INC-PLA-001	Construction Method Statement (CMS)
ICO2-INT-EC-OFC-008-INC-PLA-001	Vessel Management and Navigational Safety Plan (VMNSP)
ICO2-INT-EC-OFC-013-INC-PLA-001	Lighting and Marking Plan (LMP)
IC02-INT-EC-OFC-010-INC-PLA-001	Operations and Maintenance Environmental Management Plan (OEMP)
ICO2-INT-EC-OFC-005-INC-STR-001	Piling Strategy (PS)
ICO2-INT-EC-OFC-017-INC-PLA-001	Project Environmental Monitoring Programme (PEMP)
IC02-INT-EC-OFC-012-INC-PLA-002	Cable Plan – Export Cables (CaP – EC)
IC02-INT-EC-OFC-012-INC-PLA-001	Cable Plan – Inter-array Cables (CaP - IAC)
IC02-INT-EC-OFC-021-INC-PLA-001	Protocol for Archaeological Discoveries (PAD)
ICO2-INT-EC-OFC-018-INC-STR-002	Fisheries Management Mitigation Strategy (FMMS)
IC02-INT-EC-OFC-011-INC-PLA-001	Emergency Response Co-operation Plan (ERCoP)
IC02-INT-HS-PPP-004-INC-PLA-002	Client Emergency Response Plan (Client ERP)
IC02-INT-HS-PPP-006-INC-STR-001	Employers HSE Requirements
IC02-INT-HS-PPP-005-INC-PRO-001	ICOL Incident Reporting and Investigation Procedure
IC02-INT-EC-ONC-012-RRP-RPT-002	ICOL Onshore Transmission Works- Flood Risk Assessment
IC02-INT-EC-ONC-004-INC-PLA-001	ICOL Onshore Transmission Works – Construction Environmental Management Plan



## **Appendices**

## **Appendix A – Contractors Deliverables**



Table A -1: Construction Phase Inch Cape Proposed Contractor Reporting Deliverables

Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Daily Progress Reports (DPRs)	HS and Environmental KPIs including details of any environmental incidents or near misses	All vessels	Daily	ICOL (all package and construction personnel including ECoW)	ICOL	N/A	Contractor template
Weekly Environmental Reports	Including details on:  Environmental incidents / Non compliances – number, details on root causes, action taken and planned and scheduled close out.  Summary of environmental drills conducted.  Summary of environmental related observations received by Contractor vessels and actions taken.  Interaction with fisheries (other than incidents).  Inspections / audits conducted – purpose and key findings.  Awareness training / Environmental TBT conducted.  Waste quantities generated and transferred.  Environmental Aspects and Compliance Registers updates.	Principal Contractor	Weekly	ICOL (all package and construction personnel including ECoW)	ICOL	Can be combined with health and safety reporting	Contractor template
Environmental Compliance progress calls minutes of meeting	Teams calls to run through: Actions on meeting tracker. Contractor Compliance Schedule (ICOL deliverable). Environmental incidents and non-compliances, drills, awareness campaigns, etc. Inspection / Audit plan. Upcoming consents deliverables (TAR, chemical list, etc.). ICOL / MD-LOT updates	Principal Contractor	TBC with Contractor depending on level of activity	ICOL (Environmental Lead, ECoW, Package and Construction personnel as required)	ICOL	N/A	Contractor meeting tracker



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Vessels, agents, Contractors and Sub- Contractors	Provide the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company are fully detailed in the Vessel Report.	Principal Contractor	No later than 3 weeks prior to mobilisation and then weekly throughout construction	ICOL Lead Marine Coordinator, Environmental Lead and ICOL ECoW	MD-LOT (via Inch Cape webpage)	Submission via ICOL document process.	Inch Cape website (Persons Acting on Behalf of the Licensee Report and the Vessel Report)
Seabed Deposits Calculations	Provide the details of any substances and objects and the calculations of the estimated construction material to be used on the scope of work	Principal Contractor	Within 4 weeks of contract signature	ICOL Consents team, ECoW, Environmental Lead	ICOL	Submission via ICOL document process.	Inch Cape to provide
Inch Cape Environmental Aspects and Impacts Register	Each Principal Contractor is required to produce a project environmental aspects and impact register to demonstrate that the Contractor has identified and controlled environmental risks associated with their scope of works.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL (all package and construction personnel including ECoW)	ICOL	Submission via ICOL document process.	Contractor template
Inch Cape Environmental Compliance Obligations Register	Each Principal Contractor is required to produce a project environmental compliance obligations register, to demonstrate relevant legal and other requirements (including the Inch Cape Consents and Consent Plans) have been identified and are being managed effectively as part of their work scope.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL (all package and construction personnel including ECoW)	ICOL	Submission via ICOL document process.	ICOL or Contractor template
Waste Management Plan	Each Principal Contractor is required to produce a Waste Management Plan, that details all waste management procedures for their activities (including Contractors and Subcontractors), details of expected waste arisings and proposed procedures for waste management. This is in addition to the Garbage Management Plan of the vessels which usually don't not cover the project operational waste.	Principal Contractor	Prior to the commencement of the work. TBC with Contractor	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template
Vessel Specific Bridging Documents	Each Contractor is required to produce emergency response and environmental management bridging documents for each vessel to ensure the specific project environmental requirements (including reporting) are clear and easily accessible for offshore personnel.	All Vessels	Prior to mobilisation	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Scheme for contingency planning to deal with a flood event at Landfall	Prior to commencement of landfall works, the Contractor will submit a plan for Inch Cape approval, to deal with contingency planning for a flood event during the construction period when the coastal rock armor defense has been deconstructed.	Landfall Contractor	Six weeks prior to the commencement of the work.	ICOL ECoW and Environmental Lead	ICOL	Submission via ICOL document process.	Contractor template
Contractor Environmental Compliance Audit / Inspection Schedule	PCs shall provide Inch Cape with their Environmental Audit / Inspection plan for the work scope/s.	Principal Contractor	Within 4 weeks of contract award	ICOL (all package and construction personnel including ECoW)	ICOL	This can be part of the Contractor Health and Safety Audit /Inspection plan	Contractor template
Notice to Mariners and Kingfisher Fortnightly Bulletin	Information required for ICOL to produce and issue Notices to Mariners and information to Kingfisher Fortnightly Bulletin	Principal Contractor	No later than 3 weeks prior to the specified marine activity	ICOL Lead Marine Coordinator	Multiple users	N/A	Email
Dropped Object to sea	All dropped objects shall be notified to the Inch Cape Marine Coordination Centre as soon as possible and followed up with a dropped objects pro-forma and initial report within 24 hours.  Contractor shall submit the dropped objects pro-forma to those listed on the pro-forma within 24 hours of the incident occurring.	Contractor / Vessel Master	Within 60 min to the Duty Marine Coordinator Submit proforma within 12 hours if object not recovered	Inch Cape Duty Marine Coordinator ICOL Client Representative Package Manager/Construction team ICOL ECoW & Env. Lead As listed on Proforma	MD-LOT - depending on whether retrieval possible within 24 hrs of object being dropped	N/A	Current version of MS Renewables Dropped Objects Form (Appendix. B2)
Spills to sea	All spills to sea shall be notified to the authorities (by phone) and Inch Cape Marine Coordination Centre as soon as possible and followed up with a POLREP form and initial report within 24 hours.	Contractor / Vessel Master	As soon as reasonably practicable to the Coastguard and within 60 min to Duty Marine Coordinator	MCA Marine Coordinator ICOL Client Representative Package Manager/Construction team ICOL ECoW & Env. Lead (will notify MD- lot)	MCA MD-LOT ICOL	N/A	POLREP form (Appendix B1).



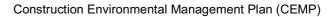
Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Archaeological discoveries	Report any discoveries in line with Inch Cape PAD and appendix B3 of this document	Contractor / Vessel Master	As soon as reasonably practicable	ICOL Duty Marine Coordinator ICOL Client Representative Package Managers / Construction Team ICOL Consents Team ICOL ECoW	ICOL Archaeological Consultant Historic Environment Scotland Receiver of Wreck	All discoveries, not just ones of archaeological potential	Email
Infringements on AEZs	Report any AEZ infringements in line with Inch Cape PAD	Contractor / Vessel Master	Within 60 min to the Duty Marine Coordinator	ICOL Duty Marine Coordinator ICOL Client Representative ICOL Package Manager/Construction team ICOL Consents Team ICOL ECOW and Environmental Lead	ICOL Archaeologist Historic Environment Scotland	N/A	Email
Interaction with commercial fishing activity	Engage with the ICOL FLO on matters where Contractor will or has impacted on commercial fishing activities so as to mitigate the effects on commercial fishing activity in the area.  Report all incidents with commercial fishing vessels/snag of gear as per reporting requirements.  Where interactions involve any conflict, this shall be reported without delay	Contractor / Vessel Master / OFLO	Weekly as standard Conflicts and incidents reported within 60 min to the Duty Marine Coordinator	ICOL Duty Marine Coordinator ICOL FLO	ICOL	N/A	Email Also to be noted on DPRs and Weekly Environment Reports
Force majeure	Full details of the circumstances of the deposit of any substance or object into the marine environment by reason of force majeure within 12 hours of the incident occurring	Contractor / Vessel Master	Immediately in the event of an incident	ICOL Duty Marine Coordinator ICOL Client Representative	MD-LOT - depending on whether retrieval possible within	N/A	Current version of MD Renewables Dropped



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
				Package Manager/Construction team	24 hrs of object being dropped		Objects Form (Appendix.
				ICOL ECoW and Environmental Lead			B2)
				[As listed on Proforma]			
Transportation Audit Report (TAR)	Reports must be produced stating the nature and quantity of all substances and objects deposited below MHWS. Where appropriate, nil returns must be provided.					Submission via ICOL document process.	ICOL
		Principal Contractor	Monthly	ICOL (ECoW, Environmental Lead, Package Manager, Construction Team)	MD-LOT		template (not included in this document)
Chemical usage	The Principal Contractor will generate a Chemical List that will be kept up to date as the project progresses.  Depending on the chemical use (in an open system or in a closed containment system) the details to provide and					Submission via ICOL document process	ICOL Chemical List
	deadlines are different.	Principal Contractor	5 weeks prior to chemical use	ICOL ECoW and Environmental Lead	MD-LOT	ICOL ECoW to submit Contractors' lists to MD- LOT	template (not included in this document)
Digital Hammer Records	The piling Contractor will provide Inch Cape with the digital hammer logs downloaded from the equipment used during the piling activities (specific requirements to be agreed with ICOL).	Principal Contractor	To be agreed with Contractor	MMO ICOL (Client Rep., ECoW, Environmental Lead, Construction team)	ICOL	N/A	As provided by the hammer software



Deliverable	Summary of requirement	Originator	Frequency	Reported to	End user	Comments	Template ref.
Lighting Failures	If lighting failure occurs that will take > 36 hrs to diagnose/ repair, Notice to Airmen (NOTAM) to be issued.  Upon completion of the remedial works, the Aeronautical Information Service (AIS) will be notified as soon as possible to enable a cancellation to be issued. The party that originally requested the NOTAM will then issue such notification so that a NOTAM cancelation notice can be issued. Such notification will include the name of the wind farm and the reference of the original NOTAM. If an outage is expected to last longer than 14 days, then the CAA will also be notified (at Windfarms@caa.co.uk) by ICOL directly to discuss any issues that may arise and longer-term strategies.	Principal Contractor	If failure will take >36hrs to repair / diagnose	Inch Cape Duty Marine Coordinator, and NOTAM section of the AIS	NOTAM section of the AIS. CAA	N/A	N/A
Final Commissioning of the Development/Works	Provide take-over certificates and 'as-built' records of the works, for aviation and nautical charting purposes and ensure that local mariners, fishermen's organisations and HM Coastguard are made fully aware.	Principal Contractor	Within 1 week following transfer of assets	Inch Cape Duty Marine Coordinator Inch Cape Client Representative Package Manager/Construction team ICOL Consents Team ICOL ECoW	ICOL	N/A	ICOL to provide
Construction Completion Handover Report	Produce an 'Environmental As-Built Report' that details statistics such as fuel use, waste, incidents and non-compliances, training conducted, and any other information including lessons learned.	Principal Contractor	14 calendar days following date of completion of the licensed activity	ICOL Environmental Lead ICOL ECoW	ICOL	N/A	Contractor report
Final Completion Date	Provide confirmation of Final Completion Date in writing	Principal Contractor	14 calendar days following date of completion of the works.	ICOL (Package Manager Consents Team Environmental Lead ECoW)	MS-LOT East Lothian Council JNCC SHN	N/A	Letter







# **Appendix B – Incident Reporting**



### Appendix B1 - Spills to Sea

The Contractor shall check the specific reporting requirements as per their **own MPCP** and / or bridging document for their own internal reporting, however, as a minimum, for Tier 1 incidents:

- The Contractor Vessel Master or Contractor Senior Offshore Person must notify the HM Coastguard by telephone.
- Notify Inch Cape MCC by telephone within 60 min.
- Follow up with a POLREP submission including the MCC in copy: see POLREP FORM next page.

The initial phone notification to the Inch Cape MCC shall be conducted within 1 hour of the pollution event happening.

**Table B-2 POLREP notifications** 

Contact	Notificati on Method	Tel No	E-Mail Address
HM Coastguard Telephone notification		+44 (0) 344 382 0724 ABERDEEN	
HM Coastguard  Submission of POLREP electronically	<b></b>		zone4@hmcg.gov.uk ABERDEEN
Inch Cape Marine Coordination Centre Telephone notification		TBC	
Inch Cape Marine Coordination Centre Copy of the POLREP notification	<b>②</b>		TBC



A written initial report with the basic details of the incident and actions taken must be submitted to Inch Cape within 24 hours of the occurrence.

Note: amended

Please refer to Inch Cape Marine Pollution Contingency Plan (MPCP) in Appendix E.

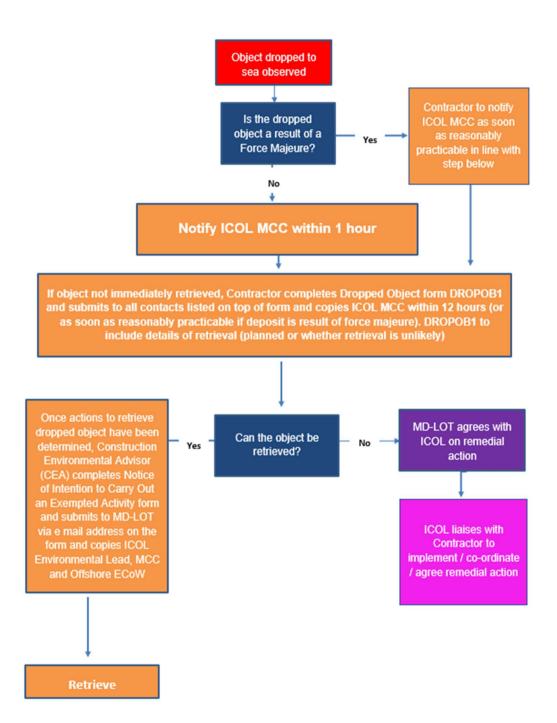
Where a spillage is part of a wider emergency, such as fire or explosion, reference should also be made to the Inch Cape Emergency Response Cooperation Plan (ERCoP) IC02-INT-EC-OFC-011-INC-PLA-001, and Client Emergency Response Plan IC02-INT-HS-PPP-004-INC-PLA-002 and the corresponding Contractor emergency response documentation.



POLLUTION REPORT - CG77 - POLREP				
Inch Cape Offshore Windfarm				
INITIAL INCIDENT REPORT				
A. Classification: -				
B. Date/Time/Observer: -				
C. Position and Extent of Pollution: -				
D. Tide: - Wind: -				
F. Characteristics of Pollution: -				
G. Source and Cause of Pollution: -				
H. Details of Vessels in area: -				
I. Not Used				
J. Any Photographs or Samples: -				
K. Remedial Action: -				
L. Forecast of oil movement: -				
M. Names of others informed: -				
N. Other relevant information: -				
END				



### Appendix B2 - Dropped Objects to Sea





#### DROPOB1 - OFFSHORE WIND & MARINE RENEWABLES DROPPED OBJECTS FORM

Marine Scotland notification pro-forma for reporting the dropped materials from the offshore wind/marine renewables industry at sea.

This DROPOB1 form should be completed in conjunction with the 'Dropped Objects Policy Guidance'. This DROPOB1 must be submitted electronically to the organisations listed below no later than 24 hours after the event takes place (or as soon as possible where there is likely to be a significant hazard to other sea users). In circumstances where not all the information is available within 24 hours, the form should be submitted and can be updated at a later time.

Marine Scotland	MS.MarineRenewables@gov.scot
Local HM Coastguard Station(s)	[dependent on location of dropped object]
Maritime & Coastguard Agency	navigationsafety@mcga.gov.uk
Kingfisher at Seafish	kingfisher@seafish.co.uk
Northern Lighthouse Board	Navigation@nlb.org.uk
UK Hydrographic Office (UKHO)	sdr@ukho.gov.uk
Navigational Warnings at UKHO	navwarnings@btconnect.com
Scottish Fisherman's Federation	PON2@sff.co.uk
Where geographically relevant:	
West Coast RIFG	Alastair.mcruaraidh.mcneill@gmail.com
Outer Hebrides RIFG	info@wifa.co.uk
Orkney Management Group	orkneyfisheries@btconnect.com
Shetland Shellfish Management Organisation	carole@ssmo.shetland.co.uk

Reporter details		Date of report:
Full name:		Position/Title:
Contact telephone no	:	Contact e-mail:



Operator/Organisation/Company responsible for dropped object:					
Name licensee or vessel responsible for dropped object					
Location/position at the time of dropping object:					
Latitude:	Longitude:				
Date dropped:	Time (24hours):				
Weather conditions at time:	Depth of sea (metres)				
Wind direction (0-360 degree):	Wind speed (knots):				
Beaufort scale: tide rate/direction	Wave height (metres):				
Dropped Object(s)- provide full description. Materials involved, function of object, dimensions, etc. Provide photos if available.					
If the materials are resting on the seabed are they near offshore assets? Yes or No:					
If yes, please provide details:					



Are the materials likely to float on the sea surface or in water column? Yes or No:
lf was paties at a display and a supply a time at
If no, estimated clearance over object:
If the answer to question above is yes - are materials likely to reach shore or cross
an international border? - please specify
Reasons for dropping object(s)
What are the plans to recover the materials? Please specify details, including anticipated
timescales for the recovery operation. If there are no plans to recover the materials the reason for
this must be clearly specified.



What are considered to be the risks and dangers to other users of the sea as a result of the lost or dumped materials not being recovered?
Any further information that may be useful:
In addition to that mandatory stated at the top of this form, please list the organisations that
you have / will copy this form to:
For internal Marine Scotland use only:
For internal Marine Scotland use only: Incident history:
Incident history:
Incident history:  Date of notification:
Incident history:
Incident history:  Date of notification:
Incident history:  Date of notification:
Incident history:  Date of notification:
Incident history:  Date of notification:  Actions taken:



Date closed:	
Reason for closing case:	
MS – Compliance/Fisheries/Renewables	
SFF	
NFFO	
IFGs	
MCA	
Kingfisher	
NLB	
UKHO	

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Once actions to retrieve dropped object have been determined, the Contractor CEA shall complete the Notice of Intention to Carry Out an Exempted Activity form and submit it to MD-LOT via e-mail address provided on the form and copy the ICOL Environmental Lead. The template can be found at: Notice+of+exempted+activity.pdf (www.gov.scot) .

This template and the corresponding supporting information should be included in the Contractors EMP or equivalent to ensure that offshore personnel have clarity on what to do to report such incidents.



#### **Table B-2 ICOL Contact Details**

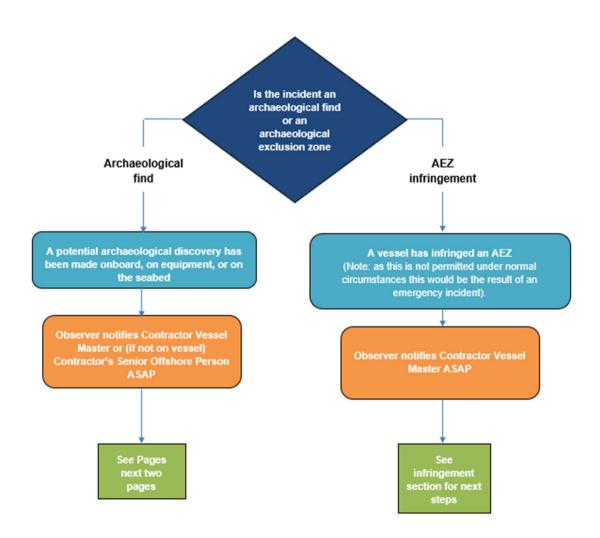
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	+44 7884245354	+44 (0) 7884245354	Susana.gonzalez@inchcapewi nd.co.uk
ICOL ECoW	Stuart McCallum	ТВС	TBC	твс
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinat or	TBC	TBC	TBC

-----END------

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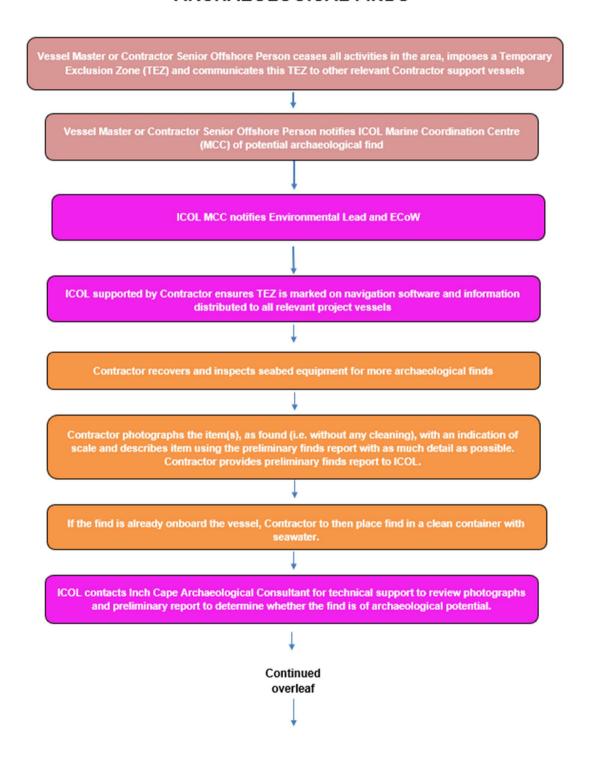


## Appendix B3 - Marine Archaeology

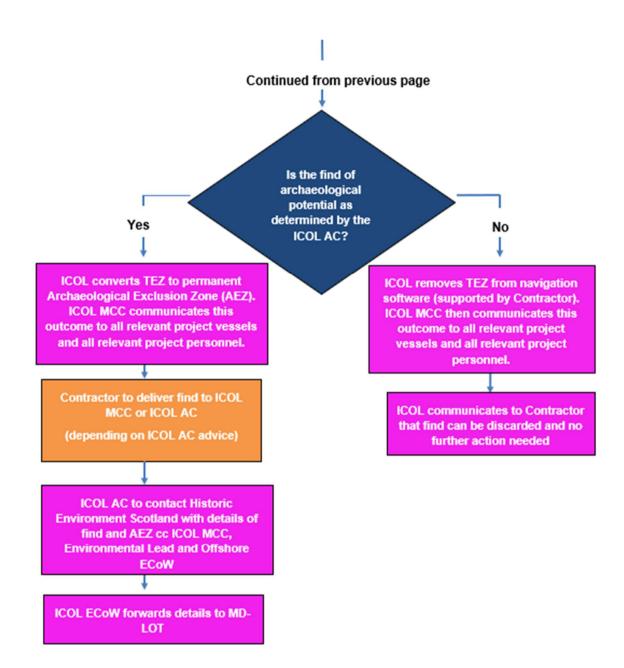




### ARCHAEOLOGICAL FINDS









# INFRINGEMENT OF ARCHAEOLOGICAL EXCLUSION ZONE (AEZ)

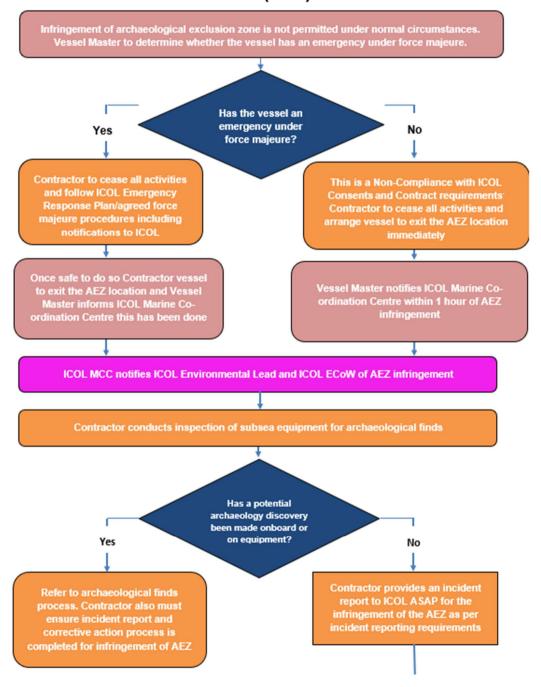






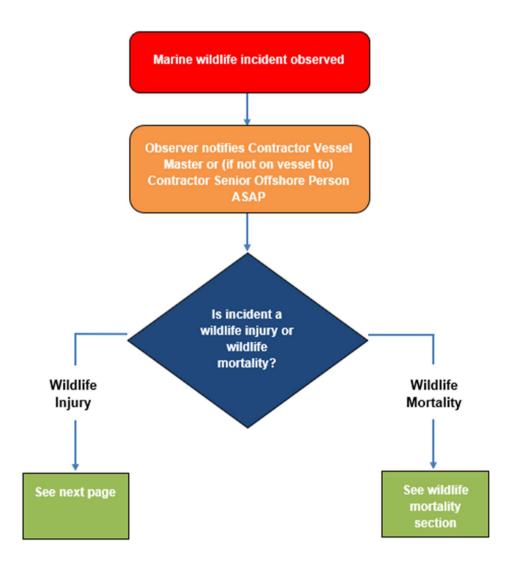
Table B-3 ICOL and Stakeholder Contact Details

Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	+44 (0) 7884 245354	+44 (0) 7884 245354	Susana.gonzalez@inchcapewind.co.uk
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	TBC	TBC	TBC
STAKEHOLDER CON	TAC DETAILS			
ICOL Archaeological Consultant	TBC	TBC	TBC	TBC
Historic Environment Scotland (to be contacted by the ICOL AC only)	TBC	TBC	TBC	TBC
MD-LOT	Duty Officer	+44 (0) 7770 733423		MS.MarineRenewables@gov.scot

-----END------END------

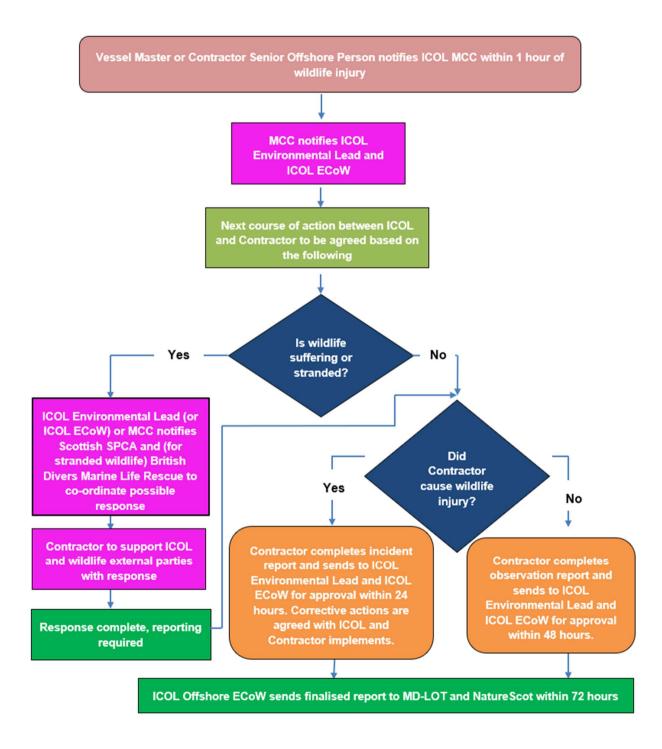


### Appendix B4 - Marine Wildlife Incident





### WILDLIFE INJURY INCIDENT





### WILDLIFE MORTALITY INCIDENT

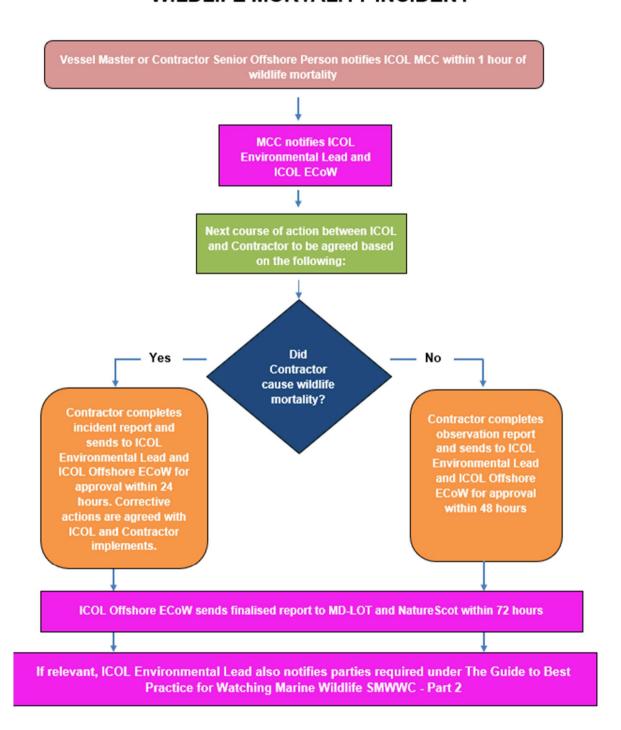




Table B-4. ICOL and Stakeholder Contact Details

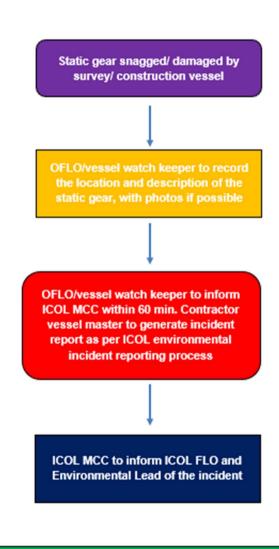
Table 2 in 1002 and Gallonelast Contact Details				
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL Environmental Lead	Susana Gonzalez	+44 (0) 7884 245354	+44 (0) 7884 245354	Susana.gonzalez@inchcapewind.co.uk
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	TBC	TBC	TBC
STAKEHOLDER CON	TAC DETAILS			
Scottish SPCA Emergency Number	+44 (0)3000 99	99 999		N/A
British Divers Marine Life Rescue Emergency Numbers	+44 (0)1825 765546 (Office hours) and +44 (0)7787 433412 (Out of office hours)			N/A
MD-LOT	Duty Officer +44 (0) 7770 733423			MS.MarineRenewables@gov.scot
NatureScot	01738 444177	(office hours only)		marineenergy@nature.scot
Scottish Marine Animal Stranding Scheme (SMASS) part of Scotland's Rural College (SRUC)	01463 243030 07979 245893	(Office hours)		strandings@sruc.ac.uk  (N.B. the e mail address in the NatureScot SMWWC guidance has been updated; use above e mail address)

-----END-----



### **Appendix B5 – Fisheries Liaison Process**

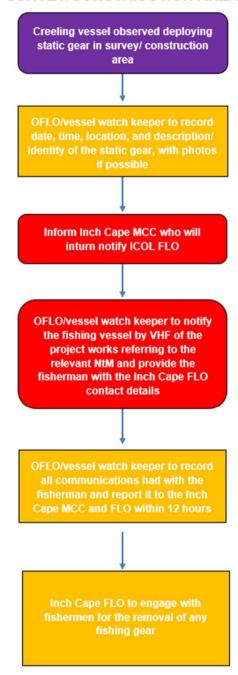
### SNAG/DAMAGE TO STATIC GEAR



FLO to progress gear loss/ damage procedure

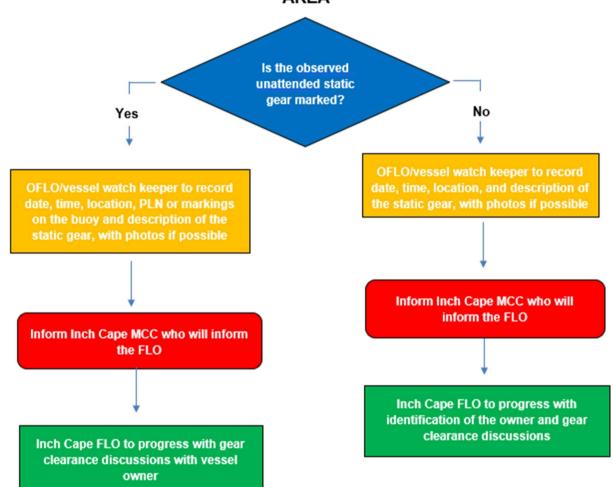


# VESSEL OBSERVED DEPLOYING STATIC GEAR WITHIN THE SURVEY/CONSTRIUCTION AREA



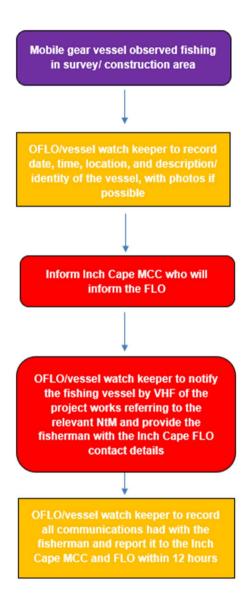


# UNATTENDED STATIC GEAR WITHIN THE SURVEY/CONSTRUCTION AREA





#### MOBILE GEAR VESSEL FISHING IN SURVEY/CONSTRUCTION AREA





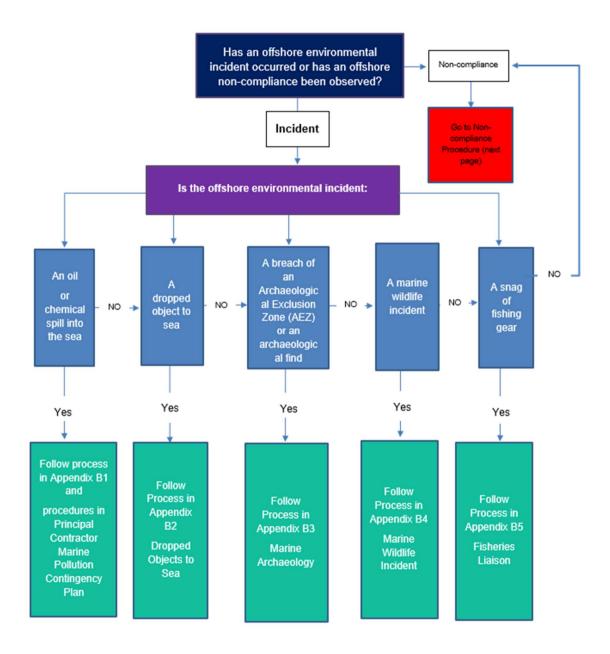
#### **Table B-5 ICOL Contact Details**

Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email
ICOL FLO (Natural Power)	Peter Berney	+44 (0) 7948 223 410	+44 (0) 7948 223 410	peterbe@naturalpower.com
ICOL ECoW	Stuart McCallum	TBC	TBC	TBC
ICOL Consents Fisheries Lead	Gavin Kelly	+44 (0) 7849 788356	+44 (0) 7849 788356	Gavin.Kelly@inchcapewind.co.uk
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	TBC	TBC	TBC

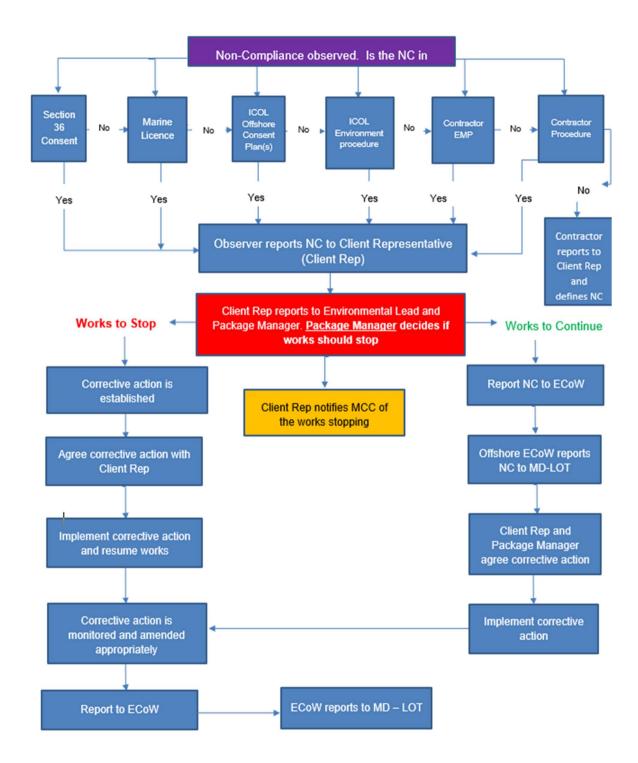
-----END------



# Appendix B6 – Offshore Environmental Incident and Non – Compliance (NC) Procedure









### **Table B-6 ICOL Contact Details**

Table B-6 ICOL Contact Details					
Organisation	Contact	Telephone (office hours)	24 hr. Contact	Email	
Inch Cape Senior Construction Manager	Andy Mee	TBC	TBC	andy.mee@inchcapewind.co.uk	
Inch Cape Environmental Lead	Susana Gonzalez	+44 (0) 7884 245354	+44 (0) 7884 245354	susana.gonzalez@inchcapewind.co.u k	
Inch Cape ECoW	Stuart McCallum	TBC	TBC	TBC	
Inch Cape FLO	Peter Berney	+44 (0) 7948 223 410	+44 (0) 7948 223 410	peterbe@naturalpower.com	
Inch Cape Archaeological Consultant	TBC	ТВС	ТВС	TBC	
Inch Cape Marine Coordination Centre (MCC)	Duty Marine Coordinator	ТВС	TBC	TBC	
Inch Cape Transmission System Package Manager	TBC	TBC	TBC	TBC	
Inch Cape Turbine Supply and Service Package Manager	TBC	TBC	TBC	TBC	
Inch Cape Foundation Installation Package Manager	TBC	TBC	TBC	TBC	
Inch Cape Cables Package Manager	TBC	TBC	TBC	TBC	
INCH CAPE CONTRACTORS CONTAC DETAILS					
твс					
ТВС					
TBC					



## Appendix C –ECoW Non- Compliance Report Template



Inch Cape		
OFFSHORE LIMITED		
ICOL Offshore ECOW Non-Compliance Report		
Date	Compliance Report No.	
Originator	Compliance Report Rev.	
	Offshore ECoW Workbook Ref	
1. Nature and Details of Non-Compliance		
2. Actions taken by ICOL's Environmental Lead		
3. Root cause analysis		
4. Agreed corrective measures and recommendation	ns	
-		
Approved by ICOL Offshore ECoW		
Checked by ICOL Environmental Manager		
Signed-off by ICOL Package Manager		



# Appendix D – ECoW Monthly Report Template



Inch Cape Offshore ECoW Monthly Compliance Report			
Inch Cape Offshore Wind Farm			
Monthly Offshore ECoW Compliance	Report		
Reporting period:			
Report prepared by:			
Other contributors:			
Section 1 – Summary of construction	activities in Month / Year		
Component	Description of activities		
Preparatory works	Monopiles		
	Jackets		
Foundations and substructures (including OSP foundations)	Transition pieces		
	OSP jacket		
	Inter-array cable installation and commissioning		
Cables	Export cable installation and commissioning		
Landfall			
WTG installation & commissioning			
OSP installation & commissioning			
Section 2 – Summary of environment	al management matters (exc. environmental and pollution incidents covered by Section 3) arising in Month / Year		
Date	Construction activity	Description of environmental management matter	Corrective action taken and status
Any other relevant comments in relation to environmental management matters in the reporting period			
in the reporting period			
Section 3 – Summary of environment	al and pollution incidents arising in Month / Year		
Date	Construction activity	Description of incident	Corrective action taken and status
Any other relevant comments in relation			
to incident management in the reporting period			
Section 4 – Summary of notifications Iss	ued in Month / Year		
,			
Date	Main activity	Notices issued	Issued to
		Notices issued	Issued to
		Notices issued	Issued to
Date	Main activity	Notices issued	Issued to
Date Section 5 – Summary of construction	Main activity	Notices issued	Issued to
Date Section 5 – Summary of construction Component Preparatory works	Main activity  activities planned for Month / Year  Description of activities	Notices issued	Issued to
Date Section 5 – Summary of construction Component	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures	Main activity  activities planned for Month / Year  Description of activities	Notices issued	Issued to
Date Section 5 – Summary of construction Component Preparatory works	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets	Notices issued	lissued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures Cables	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures Cables	Main activity  activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning	Notices issued	lissued to
Section 5 - Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning	Main activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning	Notices issued	Issued to
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Section 5 - Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning	Main activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning	Main activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning	Notices issued	Issued to
Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning	Main activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning  orgramme updates  ted to environmental management measures in Month / Year  did training activities statistics*		Issued to
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Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning  OSP installation & commissioning  Section 6 – Inch Cape Construction P  Section 7 - Additional information related to the commissioning of the commission of the commissioning of the commission of the	Main activities planned for Month / Year  Description of activities  Jackets on suction buckets  Inter-array cable installation and commissioning  Export cable installation and commissioning  orgramme updates  ted to environmental management measures in Month / Year  did training activities statistics*		Issued to
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Section 5 – Summary of construction Component Preparatory works Foundations and substructures  Cables  WTG installation & commissioning OSP installation & commissioning  Section 6 – Inch Cape Construction F  Section 7 - Additional information related the section of the sectio	Main activity    Completed this month	Completed to date	Issued to



# Appendix E– Marine Pollution Contingency Plan

IN THE EVENT OF A SPILL GO STRAIGHT TO SECTION 4



#### 1 Introduction

### 1.1 Purpose and Objectives

This Marine Pollution Contingency Plan (MPCP) has been prepared in response to the requirements of Condition 14 of Section 36 Consent, Condition 3.2.2.11 of the Generating Station Marine Licence and Condition 3.2.2.10 of the Offshore Transmission Infrastructure Marine Licence as described in section 1.3 of the CEMP.

The overall aims and objectives of the ICOL MPCP are to provide detailed information to those involved in the construction of the Inch Cape Project on the actions and reporting requirements in the event of a pollution incident originating from offshore operations relating to the Project.

The worst-case pollution event associated with the Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels.

All Inch Cape Contractors involved in the Project are required to comply with this MPCP through conditions of contract. Each Principal Contractor will produce a "Contractor Marine Pollution Contingency Plan" (Contractor MPCP) for their works that will be aligned and compliant to this document. The Contractor MPCP will bridge their vessels SOPEPs and the Inch Cape MPCP.

For spill response, Principal Contractors (or ICOL, this is still to be determined) will be responsible for co-ordinating Tier 2 and 3 oil spill response incidents using **suitably qualified and experienced oil spill response subcontractors.** The appointment of a spill response contractor either by ICOL or by each Principal Contractor has not been decided yet. This key information will be included in the next revision of this document.

### 1.2 Scope of the MPCP

This plan outlines the procedures to protect project personnel and to safeguard the marine environment in the event of an accidental pollution event arising from offshore construction operations relating to the Inch Cape Project. Th This document is applicable to the construction phase of the project, i.e. all construction and commissioning activities to be undertaken up to and including the Final Commissioning of the Development.

This MPCP presents the following information and guidelines to aid a response in the event that there is an accidental release of pollutants into the marine environment resulting from construction (and commissioning) works related to the Inch Cape Project. This marine pollution prevention plan has been produced in line with the requirements of the consent conditions (see table 1.1 of the CEMP), industry standards and best practice. The plan conveys the following:



- A risk assessment of the potential sources and likelihood of a pollution incident.
- Oil spill response procedures and actions, check sheets and industry example proformas.

The Environmental Management Plan and the Marine Pollution Contingency Plan for the operational lifespan of the Development from the Final Commissioning of the Development until the cessation of electricity generation is not included in this document but rather as a separate Operations and Maintenance Environmental Management Plan (OEMP) (IC02-INT-EC-OFC-010-INC-PLA-001) that will be in place until the Decommissioning of the Development.

#### 1.3 Structure of the MPCP

This Marine Pollution Contingency Plan is structured as follows:

- Section 1: Provides the background to the consent requirements, an overview of the MPCP scope and structure, it sets out the scope and objectives of the MPCP.
- Section 2: Provides an overview of relevant interfacing oil pollution contingency plans.
- Section 3: Identifies the sources of pollution and considers the level of risk and steps taken to mitigate against a potential pollution event.
- Section 4: Contains specific pollution response procedures, and roles of key personnel
  including reporting procedures in the event of a potential pollution incident. It contains the
  training and exercises requirements, and maps with the environmental sensitivities of the area,

### 1.4 How to use this Marine Pollution Contingency Plan

This Offshore MPCP is a fit for purpose, operational document that sets out the procedures for Inch Cape Contractors to respond to offshore oil and chemical pollution incidents in an effective and efficient manner, and in co-ordination with other applicable Contractor Emergency Response procedures and the UK National Contingency Plan (NCP).

If you are familiar with this type of document, responding to an incident and / or are a member of an Emergency Response / Incident Management Team, work through the Response Action Plan Checklist as appropriate and refer to the MPCP information guidance (sections 4 to 8) as required for the release quantification and spill trajectory calculations, environmental and commercial sensitivities potentially affected, and emergency response strategies based on the Tier level.

If you are not familiar with this type of document, this Offshore MPCP, is designed to be used primarily by the Contractors Emergency Response Teams (CERT) and also, where applicable, ICOL Incident



Management Team. It cross references/interfaces with the Inch Cape Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002) and the Inch Cape ERCoP (IC02-INT-EC-OFC-011-INC-PLA-001) to provide guidance and instruction to implement an effective emergency response arrangements in the event of an oil or chemical release to sea.

The MPCP is designed to meet the requirements of the Merchant Shipping (Oil Pollution Preparedness, Response and Co-Operation Convention) Regulations 1998 as amended and the Offshore Installations (Emergency Pollution Control Regulations 2002, and to interface with the Project Emergency Response Plan.

In accordance with UK Regulatory requirements and relevant DESNZ Guidance, this MPCP details a three-tiered response capability based on the following key factors: oil type; oil properties; potential quantities; metocean data (metrological & oceanographic); environmental and economic sensitivities and the response capabilities of both the Contractors and their response contractor's Oil Spill Response resources.

All persons expected to use this MPCP as an operational response document will receive familiarisation training covering its use and application. Mandatory Oil Spill Response training may additionally be required as set out in Section 9 - Training and Exercise Programme. Training requirements associated with this MPCP can be discussed with the ICOL Environmental Lead.



# 2 Interfacing Oil Pollution Contingency Plans and Organisations

The following sections set out how ICOL's MPCP will interface with existing oil pollution contingency plans. Within the UK there is an adopted structure and procedure for response to marine pollution events, which clearly defines the roles and responsibilities of industry, the UK Government and Local Authorities.

In the event of a spill originating from the Development activity, once notified, the Marine Coordinator will ensure that other operators and/or vessels in the vicinity that may be impacted, are notified. Where a spill originating from the Development drifts towards and/or reaches neighbouring installations and/or vessels, this may instigate activation of their own pollution contingency plans. Where appropriate ICOL will work to implement a co-ordinated response and share pollution response resources.

Other pollution contingency plans, which may interact with this MPCP in the event of a spill originating from the Development, are identified below.

# 2.1 Industry Plans

This MPCP interfaces with the following industry standard plans:

- Shipboard Oil Pollution Emergency Plans (SOPEPs)/equivalent vessel-specific spill plan for each vessel.
- Port and Harbour Oil Spill Contingency Plans (OSCPs); and
- Bridging / interface documents between ICOL and Contractors

## 2.2 Neighbouring Installations

In the event of a spill other installations in the vicinity of the Inch Cape Development must be notified.

Additionally, separate developers to Inch Cape - Seagreen Offshore Wind Limited and EDF Renewables have consents to construct and operate the Seagreen offshore windfarm (located in the outer Firth of Forth and Firth of Tay region) and NnG offshore wind farm (located off the Angus coastline) respectively. These wind farms have their own MPCPs.

The Marine Coordination Centre location is still to be determined.



In addition, construction laydown ports to marshal the foundations, transition pieces (TPs), jackets and wind turbine components and to load them onto the installation vessels will be utilised for deep berthing. These ports, are also still to be determined, are anticipated to have their own OSCP to cover incidents within the port and harbour. The Port's OSCP would take priority over the Inch Cape MPCP in the event of a major spill in the harbour and port in terms of response to an incident. Once these ports are firmed up this document will be updated.

Apart from the above, other ports may be used by a variety of construction vessels and/or other construction activities within the Firth of Forth and Firth of Tay, along the east coast of Scotland and further afield in Europe. Similarly, each of these ports would be expected to have its own OSCP to cover incidents within the port and harbour. The Port's OSCP would take priority over the Inch Cape MPCP in the event of a major spill in the harbour and port in terms of response to an incident.

Assuming pollution from an unidentifiable source is drifting towards the wind farm, ICOL shall comply fully with any instructions from the MCA or other relevant authority, in order to facilitate an appropriate pollution response. This may include stopping all construction operations of the wind farm to allow mechanical recovery of the pollution or dispersant application.

# 2.3 Local Authority Plans

In the event of actual or threatened shoreline impact, the oil spill contingency plan administered by the relevant local authority will be implemented.

## 2.4 National Contingency Plan

In the event of a significant oil spill incident, which calls for a Tier 2 or Tier 3 response (see Section 3.1 for Tier definition), the MCA may decide to implement the National Contingency Plan (NCP). In such an event, the MCA will take control of at-sea counter pollution measures and establish a Marine Response Centre (MRC). Should there be a formal hand-over of responsibility to MCA for dealing with the incident, the relevant Contractor's oil spill response resources and facilities will be made available to the MCA.

In the event that the NCP is implemented then the Secretary of State's Representative (SOSREP) will assume full command of the spill response operation. The role of the SOSREP is to represent the Secretaries of State for Transport and Department of Energy Security and Net Zero by removing or reducing the risk to persons, property and the UK environment arising from accidents involving ships, fixed or floating platforms or sub-sea infrastructure within UK waters, within the remainder of the Exclusive Economic Zone (EEZ)/UK Pollution Control Zone (UK PCZ) and on the UK Continental Shelf.



The powers of intervention with which SOSREP is invested provide that the SOSREP can direct a person to take, or refrain from taking, any action of any kind whatsoever. Indeed, if SOSREP is not convinced that the person directed can, or will, take the action then they may cause the action to be taken themselves - even if this includes the total destruction of a vessel. The legislation also creates criminal offences for non-compliance with a Direction. It should be noted that Directions must be given to specified persons who are those being in charge of a vessel or a port or harbour authority. The SOSREP has the decisive voice in the decision-making process in a marine salvage operation that involves the threat of significant pollution. The Director / Deputy Director of Operations will act as a stand-in in the event of SOSREP being unavailable.

Once notified the Counter Pollution and Salvage (CPS) Branch of the MCA will determine the need to establish an MRC. The MRC will consider and implement the most appropriate means to contain, disperse and remove pollutants from the scene in the event of a national (Tier 3 and possible Tier 2) incident. The SOSREP will also determine the need for a Salvage Control Unit (SCU) to monitor salvage activity and ensure that actions being taken do not have an adverse effect on safety and the environment and the need for an Operations Control Unit (OCU) to monitor response actions.

The MCA will determine whether it is necessary to convene the Scottish Standing Environment Group (SEG), to provide advice on public health and environmental issues that require a regional or national response. The scope of the SEG functions will be directly proportional to the scale and nature of the incident, its geographical location, extent, severity, pollutant involved, potential hazard to human health and environmental sensitivities. The scale of the incident and response and their constituent phases are likely to evolve over time and the functions of the SEG will need to be graduated to meet changing requirements, escalating or diminishing in the input to each phase over time (MCA Stop notice 2/16).

The core members that will comprise the SEG will include representatives from Marine Directorate, who will chair the group, Scottish Environment Protection Agency (SEPA), Joint Nature Conservation Committee (JNCC), NatureScot and Public Health Scotland.

Additional groups may be established where pollution threatens the coastline including the Strategic Coordinating Group (STC), to manage the onshore response strategy and the Tactical Coordinating Group (TCG), to develop an onshore operational response plan. A Scientific and Technical Advisory Committee (STAC) may be established, to provide advice to the STC and TCG. The STAC will execute a similar function as the SEG. The STAC will work closely with the SEG and in some circumstances may merge fully to provide consistent advice in the event of a Tier 2 or 3 incident.



## 3 Pollution Sources and Risk Assessment

## 3.1 Spill Tier Classification

#### 3.1.1 Introduction

The response strategy that will be adopted in the event of a pollution incident will ultimately depend upon its classification using several factors:

- The size and characteristics of the polluting substance.
- Probable and predicted behaviour of the substance in the sea.
- Consideration of the environmental sensitivities in the path of the pollution; and
- Consideration of the consequences of the different response options on the environment if they were to be adopted.

The worst-case pollution event associated with the Inch Cape Project would be a potential spill of Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used by the construction vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Oil (hydrocarbon) spills will be classified in accordance with the internationally recognised and accepted three tier oil spill classification system (Figure 3.1).

Volumes of chemicals utilised in the project will be relatively small. Chemical spills will be classified according to the characteristics of the chemical and the behaviour exhibited by the chemical when released into the marine environment (i.e. whether the chemical evaporates, floats on the surface of the water, dissolves in the water, or sinks to the seabed), see Section 7.1.2 for further information on Tier 1 strategies for chemical spills.

<u>Pollution may also take the form of solid debris</u>, if materials dropped into the marine environment subsequently fracture and float. For example, construction materials (TP covers, plastics, packing wood) may fall within the solid debris classification of pollution. Whilst this MPCP focuses on response to liquid pollution, response to solid debris pollution will be largely the same as for a liquid spill and will be reported to all necessary parties. Any object dropped into the marine environment, which is expected to remain whole, will be treated as a Dropped Object incident, rather than a pollution incident.

#### 3.1.2 Tier Classification

A brief risk assessment of potential spill scenarios and proposed mitigation measures, to minimise or



eliminate the risks has been carried out for the Development (construction - commissioning only) and is presented in Table 3.1. The risk assessment will be updated (if necessary) to ensure that the worst-case spill scenario is assessed as the project progresses. This risk assessment will also be reviewed and updated following completion of the construction/commissioning phase, to ensure that it covers the risks for the operational phase.

For general oil spill response, it is common to divide levels of response into three tiers, according to the severity of the spill and the resources required to combat it. The three tiers are commonly defined as follows (Figure 3.1):

- Tier 1 response is what is immediately available on site, geared for the most frequently anticipated oil spill.
- **Tier 2** response is for less frequently anticipated oil spills of larger size and for which external resources on a regional scale will be required to assist in monitoring and clean up.
- Tier 3 response is in place for the very rarely anticipated oil spill of major proportions, and which will possibly require national and international resources to assist in protecting vulnerable areas and in the clean-up.



Figure 3.1 Tier Definition

The conventional view of a Tier 3 scenario is one involving an exceptionally large volume of spilled oil, for example, from a major ship-sourced accident, an oil well blowout, or other such rare but highly significant event. However, a Tier 3 response may also be required for more modest volumes, perhaps



where Tier 2 arrangements may be largely absent or overwhelmed, highly sensitive areas threatened, or highly specialised strategies being required that are not available locally.

The Inch Cape-specific risk assessment in Section 3.3 shows that small operational type spills (e.g., Tier 1 category) are the most likely. However, the risk assessment cannot predict with certainty the Tier level outcome of any spill, and under a worst-case spill scenario, it is possible (although considered highly unlikely) that a Tier 2 or Tier 3 response could be required.

#### 3.2 Marine Gas Oil, Intermediate Fuel Oil and Diesel

The main source of hydrocarbons associated with the Project will be Marine Gas Oil (MGO) or Intermediate Fuel Oil (IFO) used to fuel construction vessels. The quantities of MGO and IFO will be limited to the bunkering capabilities of the vessels. The potential worst-case spill scenario associated with the Development would be a complete loss of fuel inventory from two large vessels as a result of collision, or where a passing vessel collides with a wind farm vessel or structure.

Marine Gas Oil certificate of quality and test result reports show that MGO, using the International Tank Owners Pollution Federation (ITOPF) classification key for oil types is an ITOPF Group 2 oil and that its composition, including viscosity and evaporative properties, is very similar to diesel. Diesel has very high levels of light ends, and as a result will evaporate and naturally disperse extremely quickly if released into the marine environment. The low asphaltene content prevents emulsification from occurring therefore reducing its persistence in the marine environment. For the purposes of pollution response refer to the advice on the table below for diesel fate properties.

Once spilled in the marine environment, oil immediately begins to undergo weathering, a term used to describe many natural, physical, chemical and biological changes. The changes that the oil undergoes will often influence the effectiveness of response options. Prevailing meteorological and oceanographic conditions, as well as the type of oil spilled, will determine its ultimate fate.

In the event of a release very little evidence of diesel on the sea surface would be expected and evaporation and natural dispersion is predicted to remove a release from the sea surface.



#### Table 3.1 Diesel

**Low-Sulphur Diesel** Data provided below is based on analyses of a low-Sulphur diesel sample taken from a U.S. location in 1998. For purposes of spill modelling, these data are applicable to European diesel fuel and marine diesel oil. **Evaporation** The predicted evaporation curves are based on NOAA's ADIOS2 model (Version 2.0.10). The **Potential Evaporation Curves** shaded area bounds the predicted range of evaporation for a 1000 bbl. release at the following 70 conditions: 27°C and 24-knot wind (dotted line) \* Percent 27°C and 5-knot wind (upper line), 50 4°C and 5-knot wind (lower line). 40 Actual evaporation will depend on spill specific vaporated conditions such as water and air temperature and 30 wind speed. 20 \*For refined products such as diesel, natural 10 dispersion is a significant fate mechanism which 0 limits the amount of evaporation, particularly in 0 20 80 100 60 high energy environments. Time from start of spill (hours) Refined light products do not form mousse Mousse Formation Will not form a mousse because the asphaltene and waxy n-paraffin content is low.

**Table 3.2 Spill Counter Measures** 

Spill Counter Measures					
Natural Dispersion	Diesel will dilute and disperse naturally	Natural evaporation and dispersion properties of diesel			
Chemical Dispersibility	Natural dispersibility would normally preclude the use of dispersants	Most dispersants are effective on oils with viscosities less than 1000-5000 cST.			
Mechanical Recovery	Incident specific	Appropriate measures will be determined and implemented as part of a developing Tier 2/3 response strategy. This will be led by the onshore response team most probably in conjunction with regulatory response organisations.			

## 3.3 Potential Spill Scenarios and Control Measures for the Development

The table on the next page sets out potential spill scenarios and control measures for the Inch Cape Project.

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
Hydrocarbons Intermediate Fuel Oil (IFO)	Vessel refueling Loss of fuel during vessel to vessel refueling at sea or at port	<ul> <li>Vessel bunkering is to be conducted at port only whilst engaged in the Inch Cape Project. Offshore fuel bunkering if approved will be considered a contingency measure only for vessels that are extremely restricted in their capability to leave station to take on fuel, such as jack ups and or semisubmersibles too large to enter northeast ports.</li> <li>Preparation and review of task-specific risk assessments, method statements and fuel transfer planning tools and checklists.</li> <li>The bunkering system alarms, emergency shutdown and relief valves are in good working order and tested in accordance with recognized industry standards.</li> <li>Refueling of vessels or equipment offshore shall, where practicable, only commence during daylight and in good weather conditions.</li> <li>Refueling operations will be planned in advance.</li> <li>Fuel transfer operations will be carefully conducted under the supervision of an appointed responsible person on board (e.g. Chief Engineer) and in accordance with each vessel's stipulated procedure and checklist.</li> <li>A bunker plan shall be developed and posted on the Bridge and in the Machinery Control Room.</li> <li>Only hoses fitted with non-return valves shall be used.</li> <li>A TBT shall be conducted by all personnel involved prior to the commencement of the transfer to discuss the plan of work, roles and responsibilities emergency situations and communications during the transfer operations.</li> <li>Compliance with conditions related to vessel refueling are set out in Merchant Shipping Notice (MSN) 1829 "Ship to Ship Transfer Regulations 2010/2012". This will include the Contractor</li> </ul>	Low	Tier 2
Marine Gas Oil (MGO) (Diesel)	Equipment refueling Loss of fuel during refueling of equipment (on vessel or foundation / turbine/ OSP)	applying for offshore fuel bunkering exemption from MCA. MCA requirements for successful approval of this application will include providing details on bunker plan, procedures, approval bunker hose inspection and maintenance arrangements, engagement offshore response subcontractor engagement and details on MCA certified training courses completed (or to be completed) by Contractor Vessel Master and SOPEP teams. MCA will also wish details of fuel supplier(s) to be used and details on their relevant processes. Certain conditions will then be set by MCA (including prior notification of fuel bunkering activities) as conditions of this exemption which the Contractor is required to follow.  A visual lookout will be made at all times during fuel transfer operations to verify hose integrity throughout the transfer and in order to spot any leaks immediately.  All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.  Spill kits shall be readily available for mopping up any minor spills.  Personnel shall be trained in spill prevention awareness, and in the use of spill kits.  Regular inspection and maintenance of equipment.  The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned.	Low	Tier 1



Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
		- Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.		
	Vessel to vessel collision Loss of fuel from collision between two vessels  Vessel to structure	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP) to prevent vessel to vessel collision and vessel to structure collision.	Very Low	Tier 2
Hydrocarbons	collision  Loss of fuel from collision between vessel and structure (e.g. wind turbine)	Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure to prevent collisions.	Very Low	Tier 2
Fuel Oil (IFO)  Marine Gas Oil (MGO) (Diesel)	Vessel stranding / grounding Loss of fuel due to vessel stranding / grounding	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP) to prevent vessel stranding	Very Low	Tier 2
	Failure of plant or equipment Release of fuel due to failure of plant or equipment	<ul> <li>All equipment shall be operated and maintained in good order and in accordance with manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> <li>All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.</li> <li>The means of preventing any fuel oil from escaping into the bilges such as trays beneath oil pumps, heaters etc., special oil gutter ways etc. will be regularly inspected and drained or cleaned.</li> <li>Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.</li> </ul>	Low	Tier 1

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	Spillage during use of equipment Small spills during equipment operation	<ul> <li>Preparation and review of task-specific risk assessments and method statements prior to the commencement of the task.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Spill kits shall be readily available near the equipment for mopping up any minor spills and prevent it from going into the sea.</li> <li>Oil pressure pipes and fuel oil pipes and fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified</li> </ul>	Low	Tier 1
	Incident  Loss of lubricating oil from collision between two vessels, or collision between vessel and structure, or stranding / grounding of a vessel	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 2
Lubricating Oil	Leakage within WTGs Leakage of lubricating gear oil or grease within the nacelle	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>The inventory of lubricating gear oil is limited within the turbine nacelle as there is no conventional gear box (direct drive).</li> <li>Turbine sensors will enable early detection of loss of fluid and leaks.</li> <li>There is a bunded area within the nacelle to collect lubricating oil in the event of a leak.</li> <li>Gear oil seals shall be routinely checked during the periodic checks conducted on the turbines prior to handover to O&amp;M.</li> </ul>	Low	Tier 1
	Leakage within the OSP Leakage of	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>Transformer oil seals shall be routinely checked during the construction phase of the OSP.</li> </ul>	Low	Tier 1



Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	transformers			
	Spillage during use of equipment Small spills during equipment operation  Failure of plant or	Preparation and review of task-specific risk assessments and method statements.  Personnel shall be trained in spill prevention awareness, and in the use of spill kits.  Equipment shall be used and maintained in accordance with the manufacturer's instructions.  Spill kits shall be readily available for mopping up any minor spills.  Fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.	Low	Tier 1
Lubricating Oil	equipment  Releases of lubricating oil due to failure of plant or equipment	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> </ul>	Low	Tier 1
Hydraulic Oil	Incident  Loss of hydraulic oil from collision between two vessels, or collision between vessel and structure, or stranding/grounding of vessel.	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 1

Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	Leakage within WTGs	<ul> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>The inventory of hydraulic oil is limited within the turbine nacelle as there is no conventional gear box (direct drive).</li> <li>Turbine sensors will enable early detection of loss of fluid and leaks.</li> <li>There is a bunded area within the nacelle to collect hydraulic oil in the event of a leak.</li> </ul>	Medium	Tier 1
Hydraulic Oil	Failure of plant or equipment Release of hydraulic oil due to failure of plant or equipment, e.g., hydraulic hoses	<ul> <li>All storage tanks and/or areas shall be bunded to at least 110% of the total oil storage inventory volume.</li> <li>All equipment shall be installed, operated and maintained in good order and in accordance with the design specification / manufacturer instructions and legal requirements.</li> <li>All plant and equipment shall only be operated by adequately trained and competent personnel.</li> </ul>	Medium	Tier 1
	Spillage during use of equipment Small spills during equipment operation	<ul> <li>Preparation and review of task-specific risk assessments and method statements.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Equipment shall be used and maintained in accordance with the manufacturer's instructions.</li> <li>Spill kits shall be readily available for mopping up any minor spills.</li> <li>Fittings will be inspected regularly to ensure that leaks are detected at an early stage and rectified.</li> </ul>	Low	Tier 1
Chemicals	Incident  Loss of chemical load from vessel collision/ stranding/ grounding of vessel	All vessels will comply with the measures set out in the ICO2-INT-EC-OFC-008-INC-PLA-001 Vessel Management and Navigational Safety Plan (VMNSP)  Chemicals will, where relevant, be selected, stored and managed in accordance with the Offshore Chemical Regulations 2002 (as amended).  Vessels and Marine Coordinators will also comply with measures set out in the Inch Cape Marine Coordination Procedure.	Very Low	Tier 1
	Leakage from WTGs Leakage of	- Turbine sensors will enable early detection of loss of fluid and leaks.	Medium	Tier 1



Potential Pollutant	Spill Scenario	Control Measures	Likelihood (with control measures)	Likely Tier
	transformer fluid or coolant (within and outside the nacelle)	,		
Chemicals	Spillage during use on OSP, WTG, Foundations. Spillage of paints, thinners, solvents, cleaning fluids, etc. during use	<ul> <li>Preparation and review of task-specific risk assessments and method statements.</li> <li>Personnel shall be trained in the correct handling and use of chemicals.</li> <li>Personnel shall be trained in spill prevention awareness, and in the use of spill kits.</li> <li>Spill kits shall be readily available for mopping up any minor spills.</li> <li>All hazardous substances shall have a safety data sheet (SDS) which is intended to provide procedures for handling or working with that substance in a safe manner. The handling and use of chemicals and hazardous substances shall be in compliance with the information on the SDS.</li> <li>COSHH assessments should be conducted for Development specific hazardous substances.</li> <li>Segregated storage facilities will be used to control the separation of hazardous substances.</li> <li>Chemicals will be selected, stored and managed in accordance with the consents and the Offshore Chemical Regulations 2002 (as amended) as required.</li> </ul>	Low	Tier 1

Principal Contractors shall include in their MPCP the corresponding risk assessment for their potential spill scenarios (including contractors' and subcontractors') in line with the above.



#### 3.4 Fuel oil inventories

This section provides information on the main hydrocarbon (MGO, IFO, diesel) inventories associated with the Project.

Details of the properties associated with these inventories are available in Section 3.2.

Inventories may change due to operational activities and the number and type of vessels present.

In the event of a release, vessel data should be used in the first instance to try and estimate the volumes released to sea, or with the potential to be released to sea.

Principal Contractors will include an inventory section on their MPCP to include the inventories of the vessels under their scope of work.

Installation	Oil Type	Inventory
Jack up / Semi-sub / Vessel	IFO / Marine GasOil / Diesel (ITOPF Group 2)	Contractors shall include their inventories in their MPCP and or appropriate bridging document and/or Communication and Interface Plan.  The maximum worst-case MGO inventory predicted (heavy lift vessel) is 7 0 0 0 m3.



# 4 Pollution Incident Response Procedure

#### 4.1 Introduction

This section, together with the guidance provided in sections 5 to 8 sets out the procedures to be adhered to in the event of a marine pollution incident from a vessel, a WTG and the OSP during the construction/commissioning of the Inch Cape Offshore Windfarm.

ICOL will require that any spill (actual or probable) into the marine environment, no matter how small, and no matter whether it arises from Inch Cape activities or not, is responded to, following the procedures set out below, whilst a Contractor is working on the Inch Cape Project. Potential spills (i.e. spills which do not enter the marine environment) shall be reported by the Contractor to ICOL as an Environmental Near Miss.

Priority in the event of a spill is to take measures to ensure the safety of personnel and the offshore installations and vessels, and to prevent escalation of the incident.

Where a spill into the sea is part of a wider emergency, such as fire or explosion, reference should also be made to the Inch Cape Emergency Response Cooperation Plan (ERCoP) (IC02-INT-EC-OFC-011-INC-PLA-001) and Client Emergency Response Plan (IC02-INT-HS-PPP-004-INC-PLA-002).

## 4.2 Response and Notification Overview

The processes set out below and the next sections of this document should be followed in the event of a marine pollution (hydrocarbon or chemical) incident where a spill originates from a vessel, from vessel related activity, or from a Contractor managed asset (for which the contractor has custody) prior to transfer of ownership to ICOL, during construction and commissioning activities.

When a spill is observed, it will be reported to the Contractor Vessel Master.

The Contractor Vessel Master will report the spill as soon as it is safe to do so within 1 hour of the occurrence, to the Coastguard Operations Centre (CGOC) via phone, and then to the Marine Coordinator via phone. Verbal notification should be followed up when practicable with the submission by the Vessel Master of a Marine Pollution Report (POLREP) via email to the CGOC and the Inch Cape Marine Coordinator, who in turn will notify Inch Cape personnel and the ECoW. (The subject line of the email notification shall include the name of the project).

The Contractor responsible for the vessel/asset from which the spill has originated will engage the vessel SOPEP and assume **primacy for the incident** ensuring ongoing reporting on spill status, as necessary, and initiating response or clean-up operations as required. The relevant Contractor, as the



primary responder, will request support from the specialist spill response contractor as required. The Marine Coordinator will provide a supporting role and assist with communication throughout an incident.

In the event that a regional or national (Tier 2 or 3) response is required, the MCA may take charge of the situation and implement the National Contingency Plan.

The following stages will be observed in managing a marine pollution incident originating from a vessel or vessel related activity, as outlined in Figure 4.1. This is further detailed in **Table 4.1 Response**Action Plan Checklist.

The Response Action Plan Checklist is to be used by the qualified person leading the spill response offshore (i.e. this will be the Contractor Vessel Master or Senior Offshore Representative). This checklist is to be used in conjunction with the instructions provided in section 4.4 (incident notifications) and sections 5 to 8 to estimate the quantity released, environmental sensitivities affected and emergency response strategy options.

In such situations where there is an absence of the Contractor Vessel Master, such as when Contractors are conducting work on the OSP, with an accommodation vessel nearby, ICOL requires the onshore Contractor Emergency Response Team (CERT), to play an enhanced role to support its **most senior offshore person located offshore**, to ensure the correct notifications and updates are provided to ICOL and the Coastguard for Tier 1 spills. Whilst Tier 1 spills can generally be managed by a Contractor Vessel Master without the need of CERT assistance, unless they escalate to Tier 2 and Tier 3 spills, where a Contractor Vessel Master is not present all Tier spills 1,2 and 3 must be supported by the onshore CERT.



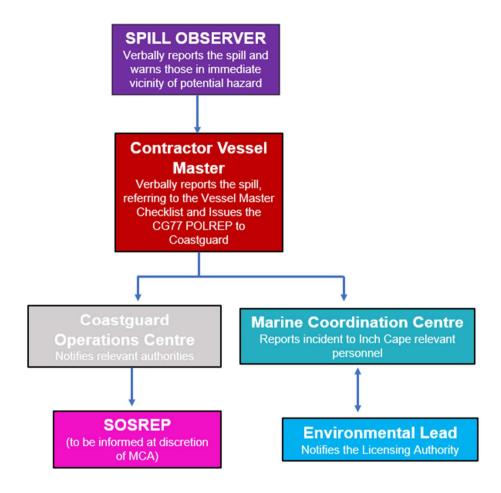


Figure 4.1 Marine Pollution Incident Stages



Table 4.1Response Action Plan Overview					
Step 1 - Initial Actions					
Time	Vessel M	aster			
	From init	iial spill report:			
		Establish safety issues			
		Take initial safety actions			
_		Take action to stop / isolate release			
0-20		Establish release parameters			
		Establish onshore support requirements.			
		Discuss onshore support requirements			
Step 2 - Mobilise Res	ources / De	etermine Primacy			
Time	On-Scene	e Commander			
		Mobilise required team(s)			
•		If necessary, minimise risk to personnel / vessel safety by using dispersant			
20-40		Confirm primacy, roles and responsibilities			
Step 3 - Assess and	Quantify				
Time	On-Scene	Commander			
		Assess actual / potential quantity			
■ 40-45  □ Determine escalation potential		Determine escalation potential			
Step 4 - Company an	d Regulato	ry Reporting			
Time	On-Scene	e Commander			
•		Undertake mandatory external and internal telephone notifications			
45-60		Complete and submit POLREP asap of initial sighting			

Step 1 - Initial Actions	
Timescale: 0 – 20 minutes (or as soon as reasonably practicable)	Actioned
Receive notification of release: location; time; source; cause; oil type; quantity; appearance of oil; escalation potential; weather.	
Record details on the initial incident data collection sheet and initiate a chronological log of events.	
Assume role of On-Scene Commander (OSC). During combined operations confirm the role of On-Scene Commander with other Vessel Masters	
Muster the crew as necessary and suspend all work permits.	
f safe to do so activate the vessel SOPEP – Steps to Control Discharge	
Notify Coastguard. If in Port/Harbour contact Port/Harbour support	
Notify Inch Cape Marine Coordination. The Inch Cape Duty Marine Coordinator is responsible for notifying the Environmental Lead and ICOL management.	
Notify the Contractor appointed spill response subcontractor. Brief of the situation and need for support	
Notify the onshore Contractor Emergency Response Team (CERT) if required (Tier 2/3 incident). If a Tier 2/3 incident and/or an incident which cannot be brought under control immediately using offshore available resources the Contractor Emergency Response Team must be notified as soon as possible.	
Step 2 - Mobilise Resources / Determine Primacy	
imescale: 20 – 40 minutes (or as soon as reasonably practicable)	Actioned
Mobilise offshore team members to support response.	
Confirm Contractor appointed spill response subcontractor is aware of the incident.	
personnel / vessel safety is at risk instruct where available dispersant to be sprayed (no endorsement	
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon	
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon is possible	
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible Confirm primacy and roles and responsibilities with the CERT	_
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon is possible Confirm primacy and roles and responsibilities with the CERT Step 3 - Assess and Quantify	_
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  frelease source is known, calculate the estimated released quantity, check tank volumes / level indicators	
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  f release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  f the release source / oil quantity is unknown estimate the release size and surface appearance using	Actioned
from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  f release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change	Actioned
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 – 45 minutes (or as soon as reasonably practicable)  f release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change helicopter if available.	Actioned
rom authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change the release is available.  Step 4 - Company and Regulatory Reporting	Actioned
from authorities needed under Force Majeure). Notify Contractor Emergency Response Team as soon as possible  Confirm primacy and roles and responsibilities with the CERT  Step 3 - Assess and Quantify  Timescale: 40 - 45 minutes (or as soon as reasonably practicable)  If release source is known, calculate the estimated released quantity, check tank volumes / level indicators and report back to the CERT.  If the release source / oil quantity is unknown estimate the release size and surface appearance using the release estimation size. Ask vessel nearby to help with the quantification  If unable to quantify, request surveillance flight through the CERT or utilise an infield crew change helicopter if available.  Step 4 - Company and Regulatory Reporting  Timescale: 45 - 60 minutes (or as soon as reasonably practicable)	Actioned



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Response Action Plan Overview				
Step 5 -Tracking and Sampling				
Time	On-Scene Co	mmander		
<b>■</b> 60-70		Track release.		
00-70		Obtain evidence.		
Step 6 Determine Resp	onse			
Time	On-Scene Co	mmander		
		Mobilise required team(s) Determine actual / potential tier response level.		
-		Confirm response co-ordination for tier level.		
70-100		Consider response strategy.		
		Identify resources required.		
Step 7 - Ongoing Respon	se			
Time	On-Scene Co	mmander		
		Continue to monitor & review response, weather & impact to environment.		
		Keep the CERT updated.		
•		For Tier 1, establish with Coastguard when to stand down. For Tier 2 this decision will be taken by the CERT. For Tier 3 by SOSREP.		
100+		Ensure waste streams are segregated and containerised appropriately.		
		Initiate investigation.		

Contractor Vessel Master Checklist				
Step 5 -Tracking and Sampling				
Timescale: 60 - 70 minutes (or as soon as reasonably practicable)	Actioned			
Only if safe to do so, task the Contractor appointed spill response subcontractor to track the movement and parameters of the slick. If unable to track release, request tracking to be done through the CERT. If crew change helicopter is nearby, consider using to provide an indication of general slick size, direction of travel and colour.				
If safe to do so obtain three oil samples. Samples are <u>not required</u> for Diessel spills Request photographs to be taken of the released oil/dispersing sheen from vessel.				
Step 6 Determine Response				
Timescale: 70 – 100 minutes (or as soon as reasonably practicable)	Actioned			
Identify any obvious local environmental or commercial receptors (e.g. birds, sea mammals etc near the slick.). Cross reference with environmental data in plan. The CERT will liaise with Inch Cape Environmental Lead and/or ECoW.				
. If the CERT has mobilised, reconfirm tier level.				
Determine response strategy with the CERT and confirm the resources available.				
Monitor and record any changes to the appearance and / or quantity of the released oil.				
Step 7 - Ongoing Response				
Timescale: 100+ minutes (or as soon as reasonably practicable)	Actioned			
Continue tracking release using infield additional resources				
Support tier 2/3 resources arriving on-site. Maintain proximity primacy protocols.				
Review previously submitted POLREP and Coastguard communications to establish requirement for any significant updates. Update via offshore or the CERT as appropriate.				
For Tier 1 releases establish, as applicable, the point at which response measures are no longer considered effective and the threat to the environment has been reduced to as low as possible. Acquire clear facts that support the intention to cease response operations.  For Tier 2/3 incidents, the CERT in consultation with all engaged agencies will establish the point at which response operations can cease.				
Ensure waste streams are segregated and containerised appropriately, e.g. hazardous waste				
If safe to do so, commence investigation				



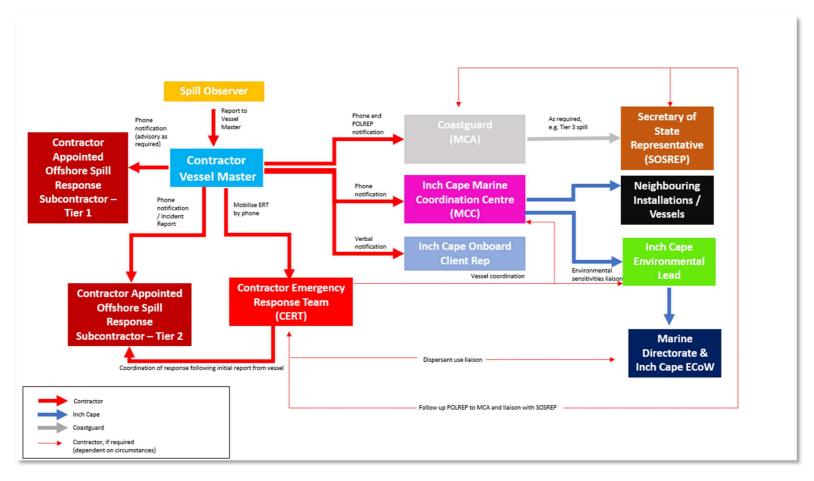


Figure 4.2. Overview of Offshore Spill Response Primacy and Communications



# 4.3 Initial Incident Data Collection Sheet

The initial incident data collection sheet is to be completed by the Vessel Master on receipt of initial notification of a release and can be used as a reference for notifications and when completing the POLREP.

Each Principal Contractor MPCP must include an incident data collection sheet aligned with this template.

Vessel Information									
Date / time of call				Company	/				
Name of caller				Position					
Contact number				Alt. contact number		mber			
Vessel name				Wind Far	m na	me			
Language of selection	Latitude								
Location of release	Longitud	le							
Date and time of incident		1							
What has been released to sea?	MGO diesel			intermedi	ate	chemical	Oth	er:	
Quantity released?				tonnes					m <sup>3</sup>
Is release on-going?	yes no								
Distance and direction from nearest land (e.g. 12 miles East of Aberdeen)	miles								
Distance and direction from nearest median line (e.g. 110 miles West Norwegian median)	miles								
Water depth		meters	S						
Incident Information									
Confirm date and time of incident						РОВ			
Incident details: what has happened what is current situation what initial actions have been taker	n								
Any casualties? (be aware of sensitive information)						ny SAR ties on-goi	ng?		
Is caller at scene of incident? (if not, where is information sourced	d)								



Is there damage to vessel? (if yes provide details)						
Have / will POB be down-manned? (if so, how many)						
Have works fully or partially shut down and / or is there an impact on other vessels/installations?						
Confirm what has been released to sea (diesel, chemical, etc.)						
Confirm quantity currently released (how has this been determined)				tonnes		m <sup>3</sup>
Confirm if release is on-going (if yes, what release rate)	t is the					
Worst case spill potential (max inventory, max flow rate)						
Pollution appearance (rainbow, sheen, etc.	.)					
Dimensions of visible spill (length, width and coverage)						
Shoreline impact likely (if yes, where and when)						
Is pollution likely to reach median line (if yes, where and when)						
Nearest Installations (have they been notifi	ied)					
Wind speed			Wind direction			
Sea state			Wave heig	ght		
Response Information						
Vessel SOPEP been activated						
Has the Contractor appointed spill response subcontractor and onshore Contractor emergency response team been mobilized (if so where and when)						
Has/will aerial surveillance been mobilised (if yes, ETA to scene. If not, how is pollution being monitored)						
What other response resource has/will be (ROV, etc.). Provide ETA where possible.	mobilised to	assist				





Is oil spill modelling being unde modelling, when will results be					
Is an impact assessment being undertaken (if yes, when available)					
Has a POLREP been submitte					
Have samples been taken, have where are samples beingsent to		samples be	en taken,		
What other agencies informed	Others:				
Other Information					
Agreed time to receive next up additional information					



## 4.4 Incident Notifications (including Roles and Responsibilities)

#### 4.4.1 POLREP Notifications

The Pollution Report (POLREP) is a notification reporting document required by HM Coastguard for pollution reporting, the latest template of this document is provided in section 4.4.5 below.

The following notifications are to be undertaken from offshore; however, in the event that the POLREP cannot be submitted by the Contractor Vessel Master (or if not present by the Contractor Senior Offshore Person), the onshore Contractor Emergency Response Team (CERT) may be tasked to undertake the submission accordingly. The POLREP template and guidance is in Section 4.4.5 below and a word copy should also be provided to Contractor Vessel Masters and CERT. In addition to the external reporting, all completed electronic POLREPs should be emailed to the ICOL MCC. The ICOL MCC will issue all the corresponding notifications to Inch Cape personnel as required.

HM Coastguard contact for Zone 4 (within which the Inch Cape Project is located) is provided as the relevant contact for the Inc Cape Project. The Contractor should also detail any other relevant coastguard contacts within their Contractor MPCP if they have vessels transiting to and from other offshore locations 'on-hire' to the Inch Cape Project.

#### Advice on completing the POLREP

- All POLREP telephone notifications should be made within one hour.
- Do not delay submission of the POLREP if all information is not known. The POLREP can be updated at any time.
- Within the "Incident Information", "section, information should be provided to allow the receiver of
  the POLREP to gain an understanding of the incident and the high-level actions being taken to
  respond to the incident from a pollution prevention and response perspective. Brief but adequate
  wording should be used.
- Photographs and samples should be requested to be taken where possible.
- On cessation of the incident, the POLREP should be updated with any changes with regards to final quantities released and corrected text information. For on-going incidents, a final close out POLREP should be submitted to advice receivers of cessation of incident.



#### **Table 4.2 POLREP Notifications**

Contact	Notificati on Method	Tel No	E-Mail Address
HM Coastguard Telephone notification		+44 (0) 344 382 0724 ABERDEEN	
HM Coastguard  Submission of POLREP electronically	<b></b>		zone4@hmcg.gov.uk ABERDEEN
Inch Cape Marine Coordination Centre Telephone notification		TBC	
Inch Cape Marine Coordination Centre Copy of the POLREP notification	<b></b>		TBC

Key:		
<b>9</b>	Email POLREP	Telephone Immediately

The Inch Cape Marine Co-ordinator will inform the Inch Cape Environmental Lead and the HSE Lead when becoming aware of a marine pollution incident. The Inch Cape Environmental Lead is responsible for notifying Marine Directorate in the first instance unless delegated to the Offshore Consents Manager.

The Inch Cape Environmental Lead supports the Inch Cape Marine Co-ordinator in co-ordinating communication between ICOL and the relevant Contractor. This ensures ICOL are aware of Contractor's



efforts to respond to the incident. The overall management of the incident to resolution is the responsibility of the relevant Contractor.

The Inch Cape Environmental Lead will also lead incident investigation if required post resolution on behalf of ICOL, following the Contractor's internal investigation.

The Inch Cape Environmental Lead will be required to liaise with the Inch Cape HSE Lead on the above responsibilities, where required.

The Inch Cape ECoW, as an independent party, is responsible for reporting on the incident response thereafter on behalf of ICOL, to Marine Directorate for resolution. The Inch Cape ECoW will liaise between Inch Cape and Marine Directorate as the incident dictates. The Environmental Lead and ECoW will liaise regularly to ensure regular updates are provided to Marine Directorate.

## 4.4.2 Principal Contractor Appointed Spill Subcontractor

Each Principal Contractor is required to appoint a spill response subcontractor prior to offshore works commencement unless other arrangements are agreed with ICOL (e.g. Inch Cape may appoint the Spill Response Contractor to cover the overall project scope). This information will be updated in the next revision of this document.

The appointed Spill Response Contractor must be a Tier 2 Marine Pollution Response Service Provider accredited as per the MCA UK National Standard for Marine Oil Spill Response Providers.

Within the Principal Contractor MPCP reference will be made to the appointed spill response subcontractor arrangements and notification requirements, this should include advisory (for Tier 1 spills) and response (for Tier 2 spills) telephone number contacts, as per the example template in the table below. It is required that the Principal Contractor appointed spill response subcontractor telephone support will be available 24 hours day, all year long.

The Principal Contractor appointed spill response subcontractor may provide Tier 3 advice to SOSREP on the Contractor's behalf. This will be initiated in a Tier 3 incident by the SOSREP.

Table 4.3 Principal Contractor Appointed Spill Response Subcontractor Notification Method

Contact	Notification Method
Tier 1 –Principal Contractor Appointed Spill Response Subcontractor (Advisory)	•
Tier 2 – Principal Contractor Appointed Spill Response Subcontractor (Response)	



The Principal Contractor is responsible for providing in the Principal Contractor MPCP a detailed list of all spill response equipment on hire from their spill response subcontractor and where located (e.g. details of port where stored or details onboard which Contractor vessel). Note this is not vessel SOPEP equipment (which is listed on the vessel SOPEP) but additional spill to sea response equipment, to be used in an emergency for the Inch Cape Project. Advice on what spill equipment is required should be discussed between the Contractor and their spill response subcontractor.

## 4.4.3 Contractor Emergency Response Team (CERT)

Each Contractor shall have in place, prior to commencement of works, a Contractor Emergency Response Team (CERT) based onshore which can respond to project emergency situations including spills. Each Contractor will list the telephone details of the CERT mobilisation number and also include relevant members of the team contact numbers including the CERT leader and deputy, as per example template below, therefore contact detail will be updated by the Contactors within their Principal Contractor MPCP. The Contractor CERT telephone support will be available 24 hours day, all year long. Each Principal Contractor MPCP must consider logistics of response and reporting across potentially multiple time zones.

Table 4.4 Example Principal Contractor Emergency Response Team Notification Method

Contact	Notification Method
CERT Mobilisation Number	•
CERT Leader	0
CERT Deputy	0

# 4.4.4 Port/Harbour Spill contact Port/Harbour Authority

For Port/Harbour Spills the Contractor will contact the relevant Port/Harbour Authority in the first instance and follow all port processes as advised. Each Principal Contractor MPCP are responsible for providing details of all ports/harbour authorities of relevance to the Contractors under their scope. The Contractors will provide details in advance of their works of the main ports/harbours authorities anticipated to be used whilst working on the Inch Cape project, as per example template in Table 4.5, therefore contact details will be updated by the Principal Contractor. **All incidents that occur whether in the Inch Cape working area or not, must be notified to ICOL** via the Marine Coordination Centre.

Table 4.5 Port/Harbour Spills contact Port/Harbour Authority

Contact	Notification Method	Tel. Number
Port of Montrose	•	+44 (0)1674 672302



# 4.4.5 POLREP Example

POLLUTION REPORT - CG77 – POLREP							
Inch Cape Offshore Windfarm							
INITIAL INCIDENT REPORT							
A. Classification: -							
B. Date/Time/Observer: -							
C. Position and Extent of Pollution: -							
D. Tide: - Wind: -							
E. Weather: -							
F. Characteristics of Pollution: -							
G. Source and Cause of Pollution: -							
H. Details of Vessels in area: -							
I. Not Used							
J. Any Photographs or Samples: -							
K. Remedial Action: -							
L. Forecast of oil movement: -							
M. Names of others informed: -  N. Other relevant information: -							
N. Other relevant information.							



Guidance is given below on the type of information to be recorded in a CG77 POLREP.

- A. Classification: Select Doubtful, Probable, Confirmed
- B. <u>Date/Time/Observer</u>: Enter date/time of obs. state UTC or local time / Enter name or title of observer
- C. <u>Position and Extent of Pollution</u>: by latitude and longitude, if possible, state range and bearing from some prominent landmark and estimated amount of pollution, e.g. size of polluted area; number of tonnes of spilled oil; or number of containers, drums etc. lost. When appropriate, give position of observer relative to pollution
- D. Tide: Speed/Direction Wind: Speed/Direction
- E. Weather: Conditions and Sea State
- F. <u>Characteristics of Pollution</u>: give type of pollution, e.g. oil crude or otherwise; packaged or bulk chemicals; garbage. For chemicals, give proper name or United Nations Number, if known. For all, give appearance e.g. liquid; floating solid; liquid oil; semi-liquid sludge; tarry lumps; weathered oil; discoloration of sea; visible vapour etc.
- G. <u>Source and Cause of Pollution</u>: from vessels or other undertaking. If from a vessel, say whether as a result of apparent deliberate discharge or a casualty. If the latter, give a brief description. Where possible, give name, type, size, nationality and Port of Registry of polluting vessel. If vessel is proceeding on its way, give course, speed and destination, if known.
- H. <u>Details of Vessels in area</u>: to be given if the polluter cannot be identified and the spill is considered to be of recent origin.
- I. Not Used
- J. Any Photographs or Samples: Give details of any photographs or samples taken.
- K. Remedial Action: Give details of any actions taken, or intended, to deal with spillage.
- L. Forecast: Likely effects of pollution e.g. arrival on shore and estimated timings.
- M. Names: of others informed apart from addressees to this message.
- N. <u>Other relevant information</u>: e.g. Names of other witnesses or references to other instances of pollution which may point to a source.



# 5 Release Quantification

The calculations shown below will be undertaken by the Contractor with support from their appointed spill response subcontractor. The table on section 5.1 is a proposed template used widely by the industry, however, each Principal Contractor MPCP may include a different release size estimation guide aligned with this template.

The volume of oil / chemical spilt should be determined using one of the following methods:

- Measured: based on level indication, tank drop, tank volume, etc.
- Calculated: based upon a known flow rate to sea for a known duration, an estimated flow rate and duration or calculated from known quantities and known concentrations.
- Visual Estimation: If the source / quantity is unknown then a visual estimation can be attained with the tables below, in conjunction with the BONN Agreement Oil Appearance Code. Table 4.9 provides details on Manual Calculation of Surface Release Trajectory

Use the guide below, or an electronic Oil Spill Calculator, to estimate the release quantity. A worked example is provided in Section 5.3.



# 5.1 Release Size Estimation Guide

Release Size Estimation Guide									
Step 1:	Total a	ırea: Estimate to	otal size	of the a	rea as	a square or re	ctangle (in	km²).	
Total Area =	=	Average Width (km)	X Avera		age Length in		=	km <sup>2</sup>	
Step 2:	<b>Oil rel</b> e area (i.	ease area: Asse e. 90% of 20 km	ess the a n² = 18 k	rea affe m²).	cted b	y the slick in kr	n <sup>2</sup> calculat	ed as	s a %of the total
Oil Release	Area (E	Estimated) km²				km²			
Step 3: Calculate area by colour: Estimate the area covered by each colour of oil as a % of area affected in km² (i.e. 60% Silvery, 40% Metallic = 10.8 km² & 7.2 km² respectively)									
				Minin	num	Maximum		S	tep 3
Co	olour		Code	(m³ / l		(m³ / km²)	% of A Affect		Area Covered km²
Oil Sheen Sil	very		1	0.0	4	0.3			
Oil Sheen Ra	ainbow		2	0.3	3	5.0			
Oil Sheen Me	etallic		3	5.0	)	50			
Discontinuou	s True(	Colour	4	50	)	200			
Continuous True Colour 5 200 >200									
		Covered: This s		e calcula	ated fo	or each code to	give Area	Cove	redby Colour <b>km²</b>
	Calcul	ate quantity by	colour	: Multiply	y the a	rea covered by	each colo	ur (M	inand Max) by
		oropriate quantit for Metallic).	y of oil i	n the tab	ole (i.e	., 10.8 km <sup>2</sup> x 0	.04 & 0.3 fc	or Silv	very & 7.2 km <sup>2</sup> x
Colour			Step 3 as above				Ste	p 4	
Colour			Area Covered		Min Volume (m³)		Max Volume (m³)		
Oil Sheen Sil	very								
Oil Sheen Ra	ainbow								
Oil Sheen Me	etallic								
Discontinuou	s True(	Colour							
Continuous T	rue Co	lour							
Step 5:	Total o	<b>ıuantity</b> : Add al	I the qua	antity by	colou	figures to get	total quanti	ty of	oil /m <sup>3</sup> .
T-4-13/-1	- (3)		Min	Volume	e (m³)		Max Volume (m³)		
Total Volum	e (m³)								
Step 6:	by t	Conversion: If necessary, you can covert m <sup>3</sup> to tonnes by multiplying total quantity in m <sup>3</sup> by the specific gravity of the released oil. (Refer to <b>Section 5.1 -Oil Properties</b> for specific gravity of oils).							
Total Volume in tonnes (m³ x SG)			Min Volume (tonnes)			onnes)	Max Volume (tonnes)		



# 5.2 Conversion Table Factors

Conversion from	Quantity	Conversion to	Quantity
Kilometres – (km)	1	Nautical Mile – (nm)	0.539
Statute Mile – (mi)	1	Nautical Mile – (nm)	0.868
Barrel (US Petroleum) - (bbl)	1	Litre - (L)	158.987
Barrel (US Petroleum) - (bbl)	1	Cubic metre (m³)	0.159
Cubic metre - (m³)	1	Gallon (US Liquid) – (gal)	264.172
Gallon (US Liquid) – (gal)	1	Litre - (L)	3.785
Gallon (UK Liquid) – (gal)	1	Litre - (L)	4.546
metre <sup>3</sup> to tonnes = (m <sup>3</sup> )	tonnes to metre <sup>3</sup> =	(t/SG)	

# 5.3 Worked Example

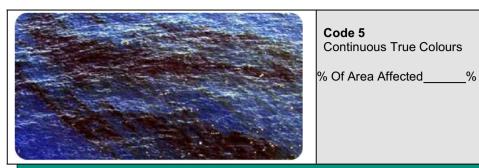
Average Width (km)				5 km			
Average Length in (km)				4 km			
Total Area (Width x Length) km²				20 km²			
Oil Release Area (Estimate)				18		km²	
Colour	Code	Minimum (m³ / km²)		laximum m³ / km²)	% of Area		a Covered km²
Oil Sheen Silvery	1	0.04	0.3		60%	10	).8 km²
Oil Sheen Metallic	3	5.0	5.0 50		40%	7	.2 km²
Colour		Area Covered	km²		n Quantity m³)		m Quantity (m³)
Oil Sheen Silvery		10.8 km²		0.432 m <sup>3</sup>		3.24 m <sup>3</sup>	
Oil Sheen Metallic 7.2 km²				36 m <sup>3</sup>		360	) m <sup>3</sup>
Total Quantity (m³)				36.5 m³ 363 n		3 m <sup>3</sup>	



# 5.4 BONN Agreement Oil Appearance Code

BONN Agreement Oil Appearance Code	
Image	Description
	Code 1 Oil Sheen Silvery % Of Area Affected%
	Code 2 Oil Sheen Rainbow % Of Area Affected%
	Code 3 Oil Sheen Metallic % Of Area Affected%
	Code 4 Discontinuous True Colours % Of Area Affected%





Code 5 Continuous True Colours

BONN Agreement Oil Appearance Code	
Code	Description
Code 1 Silvery Colour (0.04 0.3 μm)	The very thin films of oil reflect the incoming light better thanthe surrounding water and can be seen as a silvery or grey sheen. Above a certain height or angle of view the observed film may disappear.
Code 2 Rainbow Colour (0.3 μm – 5.0 μm)	Rainbow oil appearance is caused by an optical effect and is independent of oil type. Depending on the angle of view andlayer thickness, the distinctive colours will be diffuse or verybright. Bad light conditions may cause the colours to appearduller. A level layer of oil in the rainbow region will show different colours through the slick because of the change in angle of view. Therefore, if rainbow is present, a range of colours will be visible.
Code 3  Metallic Colour (5.0 μm – 50 μm)	Although a range of colours can be observed (e.g. blue, purple, red and green) the colours will not be similar to 'rainbow'. Metallic will appear as a quite homogeneous colourthat can be blue, brown, purple or another colour. The 'metallic' appearance is the common factor and has been identified as a mirror effect, dependent on light and sky conditions; for example, blue can be observed in blue-sky conditions.



Code 4  Discontinuous True Colour (50 μm – 200 μm)	For oil slicks thicker than 50 µm, the true colour will gradually dominate the colour that is observed. Brown oils will appear brown, black oils will appear black. The broken nature of the colour, due to thinner areas within the slick, is described as discontinuous. Discontinuous should not be mistaken for 'coverage'. Discontinuous implies true colour variations and not non-polluted areas.
Code 5 True Colour (>200 μm)	The true colour of the specific oil is the dominant effect in this category. A more homogenous colour can be observed with no discontinuity as described in Code 4. This category is strongly oil type dependent and colours may be more diffuse in overcast conditions.



# 5.5 Manual Release Tracking

## **Manual Calculation of Surface Release Trajectory**

An oil slick on the sea surface will move under the influence of:

- Wind speed / direction at 3% of the speed & the direction the wind is blowing from. Current speed & direction at 100% of the current speed & in the direction the current isflowing to.
- Estimating slick movement can be done manually by "vector" addition using an estimate ofcurrent and wind effect.
- Use the table below to plot the track of the oil.

Latitude:	Enter the latitude of the release when first reported.				
Longitude:	Enter the longitude of the release when first	reported.			
Wind:	Enter the wind direction and speed.				
Current:	Enter the current direction and speed.				
Elapsed:	Calculate 3% wind speed over 8 hour elapsed period and, current directionand speed.				
Plot:	After calculating wind and tidal bearings for each hour to a maximum of 8 hours, calculate new latitude and longitude position of slick to a maximum of8 hours.				
	Spill moves from point A to B under the influences of the wind a	WIND (20 Knots)			

Release at 0 Hours					
Latitude	N/S	0	٤		í
Longitude	E/W	0	٤		6
Wind Bearing			٥		
Wind Speed in knots			kr	iots	
Tidal Bearing			٥		
Tidal Speed in knots			kr	ots	

Hours Elapsed	Wind Bearing (°)	Wind Speed (knots)	3% of Wind Speed (knots)	Tidal Bearing	Tidal Speed (knots)
1					
Release Pos	sition	Lat: -		Long: -	
2					
Release Pos	sition	Lat: -		Long: -	
3					
Release Pos	sition	Lat: -		Long: -	
4					
Release Pos	sition	Lat: -	•	Long: -	•



5		
Release Position	Lat: -	Long: -
6		
Release Position	Lat: -	Long: -
7		
Release Position	Lat: -	Long: -
8		
Release Position	Lat: -	Long: -

## 5.6 Release Sampling Guide

Note: diesel spills should not be sampled for safety reasons i.e. flash point/flammability.

It is advisable to take a sample of the spilt oil if it is safe and possible. The Contractor Vessel Master should request a sample of the oil is collected using the oil spill sampling kit provided by the Principal Contractor appointed spill response subcontractor. Advice on the collection and handling of oil samples is given in the table below. Personal protection equipment advice on sample kit should also be followed to avoid injury.

Table 4.10 below is a proposed template widely used offshore however, each Principal Contractor MPCP will include advice on collecting and handling of oil samples aligned with this template.

#### **Table 4.10 Release Sampling Guide**

### **Number of Samples Required**

MCA recommend three sealed samples:

- One for analysis.
- Second to be retained for evidential purposes
- Third to be retained for The Company's own purposes

### Frequency of Sampling

Minimum of 1 sample / slick / day where possible.

## Size of Sample

- Unweather oils (liquid and subsequently free of water): 10 ml
- Oil exposed to sea surface and forming water-in-oil emulsion: 10 ml
- Overside water discharge (suspected of 100 ppm): 1 litre of discharge
- If such quantities cannot be collected, sampling should still be attempted. In some cases, larger volumes may be required for further testing of the slick.

## **Collecting Method**



- Skim the oil off the surface of the water, ensuring maximum oil content and minimum water (a bucket with a hole may be required to collect the sample initially).
- Avoid using metal tools to collect the sample.
- Any collection of lumpy tar / waxy pollutant should be placed directly into sample containers, with no attempt of heating or melting these samples.
- Oil collected which is attached to floating debris and seaweeds should be placed along with the debris/seaweeds, directly into the sampling container.
- Sample containers should be sealed as soon as possible to minimise the evaporation of the oil's higher fractions and labelled.

## **Container Sealing, Packaging and Transporting**

- Sample containers should be glass with a large neck and a screw cover and a seal which cannot be
  affected by oil, e.g. no waxed cap seals.
- Plastic/metal containers should be avoided as they can react with the sample and interfere with analysis.
- All sample containers should be sealed with a tamper proof seal.
- Where possible all samples should be securely packed and sealed. Approved fireboard boxes should be used to ensure safe carriage of the samples.
- Samples should be stored in a refrigerator/cold room at less than 5oC in the dark.
- When transporting the materials, vermiculite should be used to surround the samples in the box for protection and to absorb any seepage.

#### Labelling

Each sample should be clearly labelled with:

- An identifying number which is made up of the date and the initials of the official in charge of taking the samples. For example, 10/04/12/JS = Sample taken on 10th April 2012 by John Smith.
- A description of the sample.
- · Location that samples was taken from.
- Purpose for which the sample was taken.
- If known, suspected source, e.g., name of drilling rig.
- Whether or not dispersants have been used and, if known, their type and make.
- Method of sampling.
- Name, address and telephone number of person taking samples and of anyone witnessing the taking
  of it.
- Additional information that would be useful include wind direction and velocity; air and water temperature; sample descriptions i.e., viscosity, colour and contaminants and; description of the oil spill i.e. distribution and consistency.

An example of a label and data recording form are given below.

Analysis
The samples should be sent to:
TBC



STAN	STANDARD LABELS AND DATA RECORDING SHEETS FOR OIL SAMPLES							
OI	L POLLUTIO	N SAMPLE – S	STANDARD LABEL	OII	. POLLUTIO	N SAMPLE - S	TANDARD LABEL	
ID No.	Date/Time	Location) (Grid Ref)	Name and Address of person taking sample	ID No.	Date/Time	Location) (Grid Ref)	Name and Address of person taking sample	
For continuity of evidence: Please complete clearly Sample passed to:			For continuity of evidence: Please complete clearly Sample passed to:					
Date	Name	Address	Signature	Date	Name	Address	Signature	



## 6 Environmental and Commercial Sensitivities

Environmental and commercial information already known and identified in the Contactor's Environmental Management Plan, should be supported by actual observations from the site and used by the CERT when determining response strategies and the relevant external agencies. In the event of a release, actual sensitivities will be advised on the day by the Inch Cape Environmental Lead and/or ECoW and relevant authorities. Sensitivities will help to determine the response strategy selected.

A high-level summary of potential environmental sensitivities is provided below for information only. For further details the following chapters of the Inch Cape Environmental Statement (ES 2013) and Environmental Impact Assessment Report (EIAR 2018) should be consulted: Chapter 12 (Benthic Ecology), Chapter 13 (Natural Fish and Shellfish), Chapter 14 (Marine Mammals), Chapter 15 (Ornithology), Chapter 18 (Commercial Fisheries), Chapter 19 (Shipping and Navigation). Please also consult the Project Environmental Monitoring Programme (PEMP) ICO2-INT-EC-OFC-017-INC-PLA-001.

## 6.1 Environmental and Commercial Sensitivities Matrix

#### **Environmental and Commercial Sensitivities Matrix**

#### Seabirds<sup>3</sup>

There are a number of seabird species likely to be present in the Inch Cape Project Area due to the vicinity of several SPAs designated for seabirds amongst other features. According to Inch Cape studies these include gannet, guillemot, kittiwake, puffin, razorbill, fulmar, little oak and artic tern.

According to the studies, core seabird breeding season months for the Firths of Forth and Tay (April to September) are where population of breeding seabirds are highest, due to proximity to breeding colonies, and high populations may also be present during pre and post breeding periods, migration and over wintering.

Several Marine Environmental High-Risk Areas (MEHRAs) have been identified in close proximity to the Export Cables Corridor. These areas have been identified by the UK Government as areas of environmental sensitivity and at high risk of pollution from ships. There is a MEHRA around the Isle of May (approximately 3nm east of the corridor), and at Bass Rock and the adjacent coastline (approximately 1.4 nm, south of the corridor). The Anstruther MEHRA is located at Anstruther coastline approximately 7 nm from the cable corridor. They have been designated on wildlife, landscape, geological grounds and benthic habitats.

#### Fisheries<sup>3</sup>

**Commercial Fishing Effort:** The OWF and Offshore Export Cable Corridor are located in ICES rectangles 41E7 and 42E7. According to the official landing figures creeling (pots and traps), demersal otter trawling (demersal trawls/seine) and scallop dredging were responsible for 98.5% of the fishing activities in the local study area. The more southerly rectangle, 41E7, had the sixth highest average landing, by value, in the National Study Area during the period 2011-2016. In comparison, 42E7 had relatively moderate landings, placing 25<sup>th</sup> nationally, by value. On a regional scale, 41E7 recorded the highest, and 42E7 recorded third highest landings by value. There is also a difference in the fisheries targeted within each rectangle, with landings from the 41E7 dominated by *Nephrops* and lobster and from 42E7 by lobster and scallops. Other species captured in these

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<sup>&</sup>lt;sup>3</sup> This information was abstracted from Inch Cape Environmental Statement 2013 and Environmental Impact Assessment Report 2018 as relevant.



#### **Environmental and Commercial Sensitivities Matrix**

rectangles include crabs (edible, swimming and velvet), razor clams and squid. Notable species found in these rectangles are mackerel and whelks, although together, they account for less than 1.2% of the average annual landings. There is currently an artisanal summer fishery in the Forth and Tay area for mackerel, targeted by small, inshore vessels operating hand lines and jiggers. Local creel vessels may target mackerel during the summer months whilst also setting creels for lobster and crab.

**Nursery:** A number of species of commercial importance are known to use areas nearby as spawning and/ or nursery grounds (Cefas, 2010a, Coull *et al.*, 1998). Those include cod, lemon sole, herring (a key species due to sensitivity to underwater noise). sprat, *Nephrops*, mackerel, plaice, sandeel, hake, Norwegian lobster, monkfish, saithe, spotted ray, spurdog, tope, and whiting. There is also potential for migratory species to be present on the vicinity, e.g Atlantic salmon smolts migrating to feeding ground or adults returning to natal rivers for spawning.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Herring							S	PS	PS			
Cod	S	S	S	PS								
Sandeel	S	S										
Sprat				S	PS	PS	S	S	S			
Whiting					S	S	S					
Mackerel					S	S	S	S				
Plaice	PS											S
Saithe		S	S	S	S							
Lemon Sole				S	S	S	S	S	S			
Spurdog	S	S									S	S
Nephrops									S			
Scallops			S	S	S				S	S		
Edible Crab					S	S	S	S				
Lobster						S	S					
Squid	PS	PS	S	S	S	S	S	S	S	S	PS	PS

## Marine Mammals<sup>3</sup>

The following marine mammal species are the most commonly recorded off the Firths of Forth and Tay:

- Bottlenose Dolphin
- Harbour/Grey Seal
- Harbour Porpoise
- Minke Whale
- White Beaked Dolphin

Sightings tend to be more frequent during the summer months.

### Benthic Ecology<sup>3</sup>

As per the Inch Cape ES (2013), surveys were undertaken to characterise the marine plants and animals on the seabed within the OWF and Export Corridor Project areas. The Development area consisted of sands and gravelly sands with areas of muddy mixed sediment. The epibenthic species found were dead man's finger, horned wrack, brittlestars, hydroids and some small fish and mobile benthic invertebrates. Two habitats, one



#### **Environmental and Commercial Sensitivities Matrix**

regarded as conservation priority in the UK Post-2020 Biodiversity Framework, and the other one listed under the habitats directive was identified on site. The only species of conservation importance found to be living within OWF area was ocean quahog (Artica islandica), a Scottish Priority Marine Feature (PMF) and listed under OSPAR's list of threatened and/or declining species was recorded at moderate abundances. All individuals recorded were juveniles, but greater than 1 mm in diameter.

A number of reef forming polychaetes were recorded (Sabellaria spinulosa and Serpula vermicularis). These species are of high conservation importance when in reef form, however no reef structures were observed. There is one potential nature conservation Marine Protected Area in the vicinity of the Development Area (to the east 1 km distant at its nearest point), the Firth of Forth Banks Complex where Artica islandica has been identified as a PMF in this location. The MPA includes the Berwick, Scalp and Montrose Banks and the Wee Bankie. Strongly influenced by water currents, the mosaic of different types of sands and gravels create a unique mixture of habitats that overlie the underwater banks and mounds within the MPA. The aim of the MPA is to conserve the ocean quahog aggregations, offshore subtidal sands and gravels, and shelf banks and mounds that are present within the Firth of Forth Banks Complex MPA. The glacial ridges of the Wee Bankie are also conserved. Further details are provided in figures 4.4 to 4.6.

The levels of contaminants on the sediments were spatially variable across the OWF and there are no identified areas of enhanced contamination despite the presence of the historical sewage sludge disposal ground at Bell Rock (south of the OWF).

The surveys for the Offshore Export Cable confirmed that substrates in the Forth estuary are mainly sedimentary, with species diversity increasing with increasing salinity and depth offshore. A number of sites, designated for nature conservation are in close proximity of the Offshore Export Cable Corridor. The Isle of May Special Area of Conservation (SAC) is designated in relation to sub-tidal benthic features, with rocky reefs surrounding the island. A number of other SACs cite Annex 1 Habitats as their qualifying conservation interests, including the Firth of Tay and Eden Estuary, the Moray Firth and the River Tay. There is no potential connectivity with these SACs and the Offshore Export Cable Corridor relating to Benthic Ecology or Annex 1 habitats interest due to their remoteness and limited range of direct or indirect effects.

The Firth of Forth Site of Special Scientific Interest covers large areas of the Firth of Forth with the marine Notified Natural Features of mudflats and saltmarsh within its boundary. None of these Notified Natural Features are present at landfall. The survey of the landfall location at Cockenzie indicated it to be typical of a sandy gravel beach with few species present. Of those identified the majority were worms or marine snails.

## Commercial Shipping<sup>3</sup>

Based on the analysis of the marine traffic data, it is considered that commercial vessel activity around the OWF and the Export Cables corridor is relatively low with a number of low trafficked routes passing through and in close proximity to the windfarm.

The principal routes that will be affected during construction works are the north-south routes between Aberdeen and Montrose / Northern Scottish and UK ports, the River Tay Ports, Montrose and Forth / European ports. The busiest of these routes is used by an estimated 2.5 vessels per day and passes through the OWF to go to Northern Scotland. Vessels on these routes, and others which intersect the site, are expected to make minor deviations to increase their passing distance around construction activities. Rolling construction safety zones will be in place up to 500m from the construction activities and there may be more than one present at any one time. It is expected that vessels will deviate around these rolling construction safety zones.

A number of commercial shipping routes have been identified as intersecting the Offshore Export Cable Corridor with defined traffic routes being identified as heading to and from ports in the Firth of Forth and the Firth of Tay.



The figures below show the different range of protected areas in the vicinity of the OWF and the Export Cable Corridor; these include:

- Firth of Forth SPA
- Firth of Tay and Eden Estuary SPA (also a SAC)
- Forth Islands SPA (including Isle of May SAC)
- Montrose Basin SPA
- Outer Firth of Forth and St Andrews Bay Complex (SPA)
- Firth of Forth Banks Complex MPA
- SSSI and Ramsar sites on the East Lothian Coast contributing to the MPA network.
- MEHRAs Marine Environmental High Risk Areas

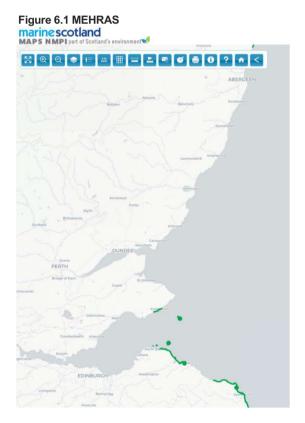


Figure 6.2 Protected Areas Project Area

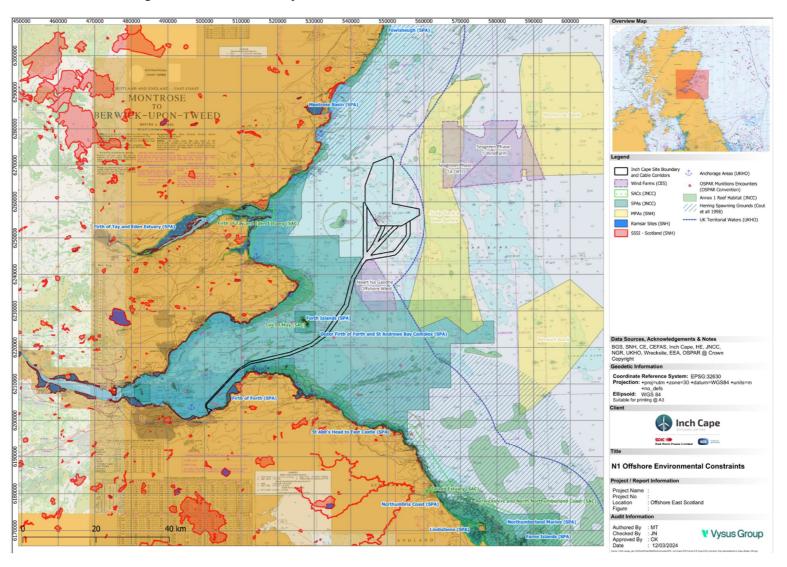
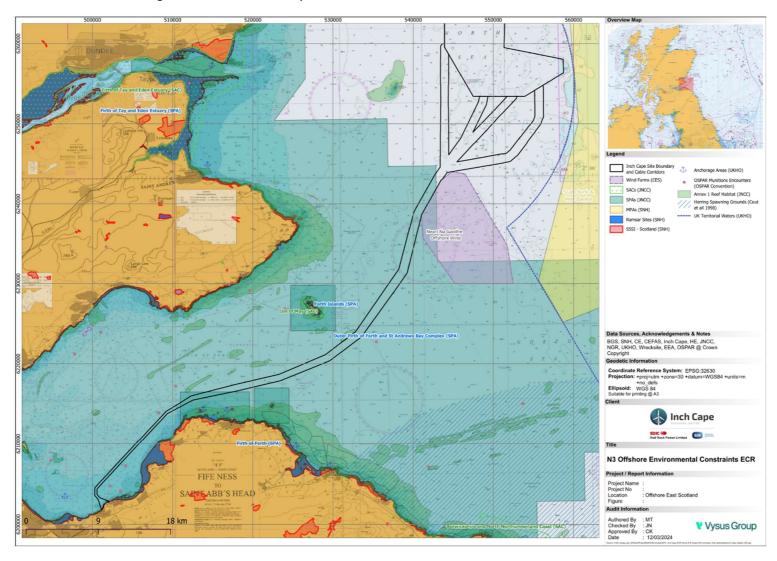
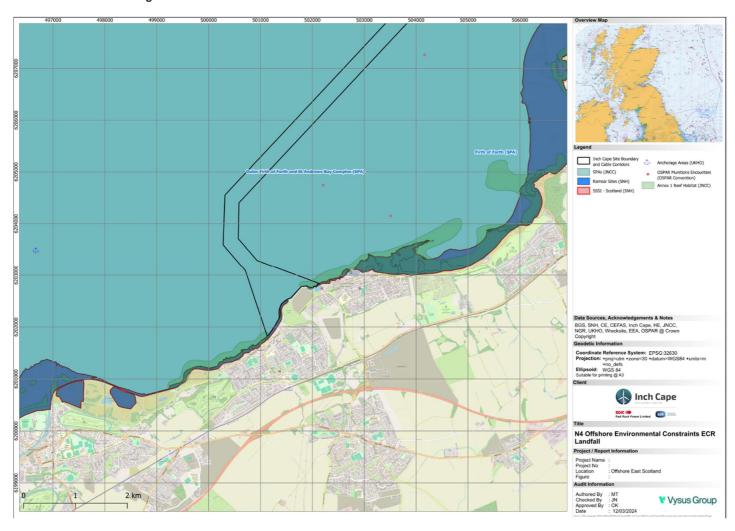


Figure 6.3 Protected Areas Export Cables Area





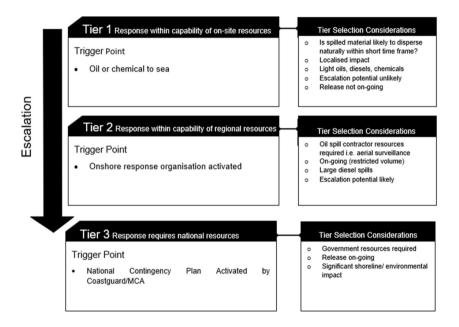




## 7 Tier Selection Guide

The guide below assists the decision-making process in determining the appropriate tier response level for an oil or chemical release to sea. The method of response will be dependent upon several factors including, but not limited to, the incident in question, volume of oil/chemical, oil/chemical type, time of year, weather, sea state and resource availability.

Figure 4.7 Tier Selection Guide





## 7.1 Selecting an Emergency Response Strategy

## 7.1.1 Overview

The appropriate response strategy will depend not only on the potential limitations of each of the possible response options, but also on the type of oil spilled and the environmental sensitivities that are potentially threatened by the spill. Table 7.1 presents the response strategies that are generally followed on the UK Continental Shelf (UKCS), according to spill Tier and oil type.

For chemical spills, Tier 1 is assumed and is discussed in section 7.1.2. below.

Table 7.1 General response strategies according to spill Tier and oil type

Tier &	Response strategies						
Resources	Non-persistent Oil (MGO and Diesel)	Persistent Oil (Hydraulic and Lube Oils)					
Tier 1 (small spill) On site resources	Natural dispersion and monitoring (using support vessel).  If safe to do so, agitate using standby vessel propeller ('prop-wash'), by steaming through the slick at speed.  Liaise with Contractor appointed spill response subcontractor as required.	Natural dispersion and monitoring.  Mechanical recovery where possible.  Liaise with Contractor appointed spill response subcontractor as required.					
Tier 2 (medium spill) Spill Response Subcontractor and CERT	Natural dispersion and monitoring.  Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities.  Consult specialist services from Contractor appointed spill response subcontractor.	Consult specialist services from Contractor appointed spill response subcontractor.  Continue to monitor and evaluate strategy using aerial surveillance.  Consider mechanical recovery where possible.  Mobilise shoreline containment and recovery equipment if shoreline is threatened – Contractor appointed spill response subcontractor to engage additional support if necessary.  Boat-based dispersant application – liaise with Contractor appointed spill response subcontractor as required. This will require approval from Marine Directorate in advance. Unlikely to be approved unless under Force Majeure.					
Tier 3 (large spill) Spill Response Subcontractor, CERT and MCA/SOSREP	Natural dispersion and monitoring (aerial surveillance) Chemical dispersion only if safety or environmental sensitivities are threatened, in consultation with the relevant authorities. This will require approval from Marine Directorate in advance. Unlikely unless under Force Majeure. Consult specialist services from Contractor appointed spill response subcontractor.	Contractor appointed spill response subcontractor specialist services.  Continue to monitor and evaluate strategy using aerial surveillance.  Consider mechanical recovery where possible. Mobilise shoreline containment and recovery equipment if shoreline is threatened.  Aerial dispersant application. Liaise with Contractor spill response subcontractor as required. This will require approval from Marine Directorate in advance. Unlikely unless under Force Majeure.					

Based on the risk assessment, most oil spills potentially originating from the project are likely to be of small volume (Tier 1) and of light non-persistent oil types. The spill response strategies most



appropriate to this oil spill risk are detailed below.

## 7.1.2 Tier 1 Strategies

#### Oil Spills

#### Monitor & Evaluate

For all spills, any oil slick should be monitored from the outset. In the case of the Inch Cape project, this will typically involve monitoring by use of a vessel, either already on site, or mobilised for the specific purpose.

The physical appearance of any oil slick should be monitored closely, in addition to changes in the oil or changes to sea state conditions, which may influence the perceived environmental impact. Dispersant application is not normally necessary for Tier 1 spills.

## **Natural Dispersion**

If light non-persistent oil has been spilled, the best strategy will be to allow physical processes to disperse the oil naturally. However, this strategy should always be backed up by thorough monitoring and evaluation.

If natural dispersion is selected as the key response strategy, it must be demonstrated through close monitoring of the oil slick that natural dispersion is in fact taking place.

If light oil has been spilled, such as diesel or hydraulic oil, the process of natural dispersion can be aided by a technique called prop-washing. This technique should be discussed and agreed between Contractor Vessel Master and Contractor appointed spill response subcontractor.

#### **Chemical Spills**

Volumes of chemicals utilised in the project will be relatively small. A brief summary of potential response techniques for different groups of chemicals (according to their behaviour on contact with water) is presented below.

<u>Gases and Evaporators</u> - The release of a gas or evaporating liquid chemical has the potential to generate vapour clouds that might be toxic or form an explosive mixture with air. In an open environment, toxic vapour will usually disperse as a result of natural air movement and often the only feasible response measure will be to monitor any vapour cloud/plume as it disperses.

<u>Floaters</u> - Floaters may spreads across the water surface to form a slick. For spills involving relatively persistent chemicals that float, it may be possible to detect and monitor floating materials. If safe, it may be possible to consider deploying booms to contain and control the movement of substances.



Skimmers and other oil response equipment may also be used to recover material from the surface. Containment and recovery may not be advisable when dealing with highly toxic or flammable chemicals. In certain circumstances, sorbent materials may be deployed to collect and concentrate a chemical spill.

<u>Dissolvers</u> - The ability to contain and recover dissolved chemicals is extremely limited. Providing means to accelerate the natural processes of dispersion and dilution may be the only way to respond to such chemicals. Some dissolved chemical plumes may, in theory, be neutralised, flocculated, oxidised or reduced by the application of other chemicals, but chemical treatment is unlikely to be practical and would not normally be recommended.

<u>Sinkers</u> - Chemicals that sink have the potential to contaminate the seabed and may persist in sediments. Response may therefore need to consider the recovery of any chemicals and heavily contaminated sediment. In shallow waters, mechanical dredgers and pump/vacuum devices may be used to recover materials.

## 7.1.3 Tier 2/3 Strategies

In most cases, any oil spills from the Inch Cape project are likely to be small in nature.

However, in the unlikely event of a larger oil spill, or if the spilled oil persists, then regional or national response capabilities may need to be mobilised.

Tier 2 spills will require regional response using the Contractor appointed spill response subcontractor and onshore CERT to support the Contractor Vessel Master offshore.

Tier 3 spills will require national resources, the MCA will likely implement the National Contingency Plan and the Secretary of State's Representative (SOSREP) will take command of the incident. This will still require support and co-operation of the Contractor's Vessel Master, Contractor appointed spill response subcontractor and onshore CERT to support the MCA and SOSREP.

The Inch Cape Marine Coordinator will maintain continued communications with those on site (such as the Contractor Vessel Master) and provide assistance to the relevant response cells established by the MCA. The Inch Cape ECoW will, where necessary or requested to do so, liaise with the Standing Environment Group (SEG) and Scientific Technical Advisory Committee (STAC), to ensure the effective transfer of information.

In addition to the response above, the following additional resources may be deployed in response to a Tier 2 or Tier 3 incident.



### Offshore Containment & Recovery

For larger spills of more persistent oil in environmentally sensitive areas, or oils that are not amenable to dispersion at sea, offshore mechanical containment and recovery may be considered as a response option. This would involve the deployment of an oil recovery vessel(s) with offshore oil containment booms and oil skimming equipment.

Mechanical containment and recovery capability would be available through the Contractor appointed spill response subcontractor.

Note that for the general UKCS environment, offshore containment and recovery is not normally considered to be a viable response strategy, due to the rough offshore weather conditions that are often encountered.

However, if a large volume of more persistent oil is spilled and the oil is not dispersing naturally, and the weather conditions are amenable, offshore containment and recovery may be a useful response strategy.

#### **Dispersant Application**

There is the option to apply dispersant by sea and/or air to aid and accelerate natural processes dispersing the oil, thus removing it from the sea surface.

Due to the light nature of the oils associated with the Development, dispersant application is not likely to be a viable response option. However, in the unlikely event of a large spill of more persistent oil, dispersant application may be considered if the oil is not observed to be dispersing naturally.

Appropriate consultation is required with regulatory bodies before initiating the use of dispersant as a response.

Formal approval for dispersant use from the Marine Directorate will be required in water depths of less than 20 metres or within 1 NM of such depths.

However, UK approved oil treatment products may be used without prior consultation with the licensing authority in Force Majeure situations where there is a genuine risk to human life, or to the safety of an installation or vessel, such as where there is a serious danger from fire or explosion.

The window of opportunity to use chemical dispersants will be dependent upon various factors, including the quantity of oil, sea temperature, the nature of the spill (i.e. instantaneous or continuous release), prevailing weather and environmental and commercial sensitivities.

For environmental and commercial sensitivities in the vicinity of the Development, refer to section 4.6 of this document which summarises relevant sections of the Inch Cape EIAR and relevant Consent Plans.



A dispersant response capability should be available through the Contractor's appointment of a spill response subcontractor.

The Marine Management Organisation (MMO) acts on behalf of Marine Directorate for the testing and approval of dispersants and other oil treatment products which are intended for use in all UK waters. It also regularly reviews existing approvals to ensure that products remain safe (MMO, 2015).

The MMO has published a list of the latest oil treatment products approved for use on the UKCS which is regularly updated: : <a href="https://www.gov.uk/government/publications/approved-oil-spill-treatment-products/approved-oil-spill-treatment-products">https://www.gov.uk/government/publications/approved-oil-spill-treatment-products</a>

Forms in section 8 (tables 7.2 and 7.3) must be completed and sent to Marine Directorate via ICOL for dispersant usage.

# 8 Dispersant Application

Prior to dispersant application, the information in Table 7.2 is proposed to be submitted to Marine Directorate. The use of dispersant must be approved by Marine Directorate before use unless under Force Majeure.

Table 7.2 Information required if seeking advice or prior approval of dispersant use

MARINE SCOTLAND email: MS.SpillResponse@gov.scot					
Installation / spill information					
Name of Responsible Person:					
Name of site:					
Location of spill (in degrees of Latitude and Longitude):					
Oil type (description if not known). If crude oil, state type:					
Volume of oil spilled – preferably in tonnes:					
Source of oil spill:					
Potential for further spillage:					
Description of slick – including dimensions and colour:					
Dispersant use information					
Dispersant type(s):					
Dispersant proprietary name(s):					



MARINE SCOTLAND email: MS.SpillResponse@gov.scot					
Quantity / quantities proposed for use:					
Method(s) of application:					
Have efficacy tests been undertaken to confirm hydrocarbons are amenable to treatment? If so, what were the results?					
Location(s) of application:					
Water depth (m) in application area(s):					
Minimum distance (km) from nearest shoreline:					
Minimum distance (km) from nearest median line:					
Environmental sensitivities relevant to location(s) of application (including any protected sites within 20 km):					
Prevailing weather conditions: Wind speed, Wind direction, Wave height:					
Other methods of responses being applied:					

The information in table 7.3 below is required to be submitted to Marine Scotland after the use of dispersant (adapted from DECC, 2015).

Table 7.3 Information to be recorded when using dispersant

Table 7.3 Information to be recorded when using dispersant		
MARINE SCOTLAND email: MS.SpillResponse@gov.scot		
Installation information		
Name of operator:		
Name of site:		
Location (in degrees of Latitude and Longitude):		
Dispersant use information		
Date of use:		
Dispersant proprietary name(s):		
Quantity / quantities used:		
Method(s) of application:		



MARINE SCOTLAND email: MS.SpillResponse@gov.scot		
MAKINE SCOTEAND email: MO.Op	Thirtesporise@gov.scot	
Location(s) of application:		
Prevailing weather conditions at time of use:		
Wind speed		
Wind direction		
Wave height		
Reason for use:		
Was approval or advice obtained prior to use?		
Estimate quantity of oil treated:		
Comments on effectiveness of treatment:		
Other relevant observations / comments on use:		
Name and contact details for person reporting use:		
Date and time report was completed:		



# 9 Training and Exercise Programme

This section describes the training and exercise program to ensure personnel with responsibilities during an oil pollution incident are competent, and that the Spill Response Contractor is always fully operational and ready.

A record of all exercises undertaken by Principal Contractors and their Contractors and Subcontractors will be maintained at the location where the exercise was conducted i.e. either offshore or onshore. Records will contain details of: the exercise scenario, aims and objectives, action plan checklist completed, POLREP form, timeline of the exercise, lessons learnt / recommendations and actions. It is an expectation that **the guidance and materials provided in this document are used during the drills**, i.e. release estimation guide, appearance guide, etc. and that these exercises are different to the regular SOPEP drills conducted offshore (where the spill is contained onboard). Records will be retained onboard until the end of the project and be available upon request by ICOL.

Any strengthening identified during exercises will be communicated to ICOL who will decide whether to include it in this MPCP during the next review process.

Personnel	Training
Vessel Masters	Oil Spill Awareness Response for Offshore Vessel Crews or equivalent
Principal Contractor Construction Manager / Operations Manager	
Personnel	Exercises
Contractor Vessel personnel	<ul> <li>MPCP drills and exercises shall be conducted by all Principal Contractors to ensure all relevant responsible personnel are familiar with the MPCP, can use the Action Plan Checklist and supporting guidance and understand their roles and responsibilities in a pollution event.</li> <li>A full MPCP drill shall be conducted by each Principal Contractor every 6 months and prior to conduct offshore bunkering operations.</li> <li>These exercises are over and above the periodic SOPEP drills conducted onboard the vessels.</li> </ul>