

Inch Cape Offshore Wind Farm

New Energy for Scotland

Offshore Environmental Statement:
VOLUME 2A
**Appendix 7A: Draft Environmental
Management Plan**



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7A.1 Draft Environmental Management Plan

7A.1 Introduction

This draft Environmental Management Plan (EMP) has been prepared by Inch Cape Offshore Limited (ICOL) to cover pre-construction, construction and operational activities associated with the Inch Cape Wind Farm and associated Offshore Transmission Works (OfTW). This draft EMP outlines the approach to be adopted towards environmental management during the pre-construction and construction phases of the offshore elements of the Project so as to reduce adverse impacts on the environment.

At present, it is anticipated that a single EMP will be used for the Inch Cape Offshore Wind Farm and the associated OfTW. This draft EMP will be revised following consent determination and as more detailed information on construction methodologies becomes available and finalised prior to construction. This draft document has been prepared early in the Project lifecycle and therefore there are sections which are indicative of how ICOL intends to manage environmental matters, which are based on reasonable assumptions at the time of writing.

The final EMP will detail the environmental management requirements expected of all participants (including contractors and consultants involved in the development of the Inch Cape Wind Farm and the OfTW). It will also be used to monitor environmental management during construction. Finally it will define the procedures for ensuring compliance with the following:

- Environmental legislation and regulations;
- Licence, permit and consent conditions;
- ICOL environmental policy statement;
- The Project Environmental Statement; and
- Findings of Appropriate Assessment.

The final EMP will include reference to the range of environmental monitoring proposed during pre-construction, construction and operational phases, a provisional programme for this, and a proposed approach to reporting and presenting findings including;

- Marine Mammal Mitigation Protocol;
- Fisheries Liaison Protocol;
- Notice to Mariners Protocol;
- Archaeological Written Scheme of Investigation;
- Marine Pollution Contingency Plan (MPCP); and
- Scour Management Plan.

In order to ensure that the final EMP is being adhered to, all contractors may be subject to audit by ICOL. In addition, the results of audits carried out by consultants, contractors and sub-contractors relevant to works on the Project will be made available to ICOL.

The EMP is a “live” document that will be updated periodically. The draft EMP therefore reflects the project progress and information available at the time of writing. As such consultants, contractors and subcontractors are required to update their own Environmental Management Plans and other relevant documents for ICOLs construction activities in accordance with the revisions to the EMP.

The EMP will interface with the Construction Stage Health and Safety Plan issued in accordance with the Construction (Design and Management) Regulations 2007.

Company Environmental Policy is supported by the Repsol UK Health and Safety, and Environment Management Systems, at the current time.

7A.2 Organisation, Site and Environment

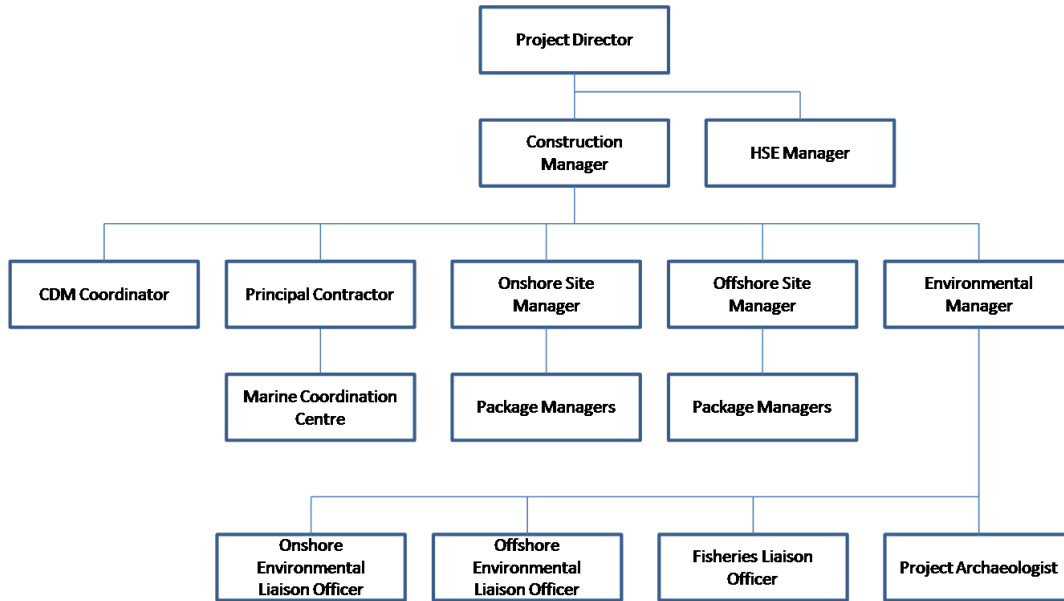
7A.2.1 Organisation Description

ICOL will construct but not own the OfTW. These assets will be transferred to an Offshore Transmission Operator (OfTO) upon completion of their construction. The OfTO will own and operate this infrastructure.

An illustrative example of a potential project team is shown in shown in Figure 7A.1. This will be updated once details of the construction team(s) and contracting strategy have been determined. Each offshore construction team will be coordinated by the Principal Contractor, who will report to the Construction Manager. It is expected that the environmental management team will be supported by a dedicated Offshore Environmental Liaison Officer, Onshore Environmental Liaison Officer, Fisheries Liaison Officer and Project Archaeologist. The team structure will be updated once further details of the construction strategy are available. Contact details for the core team with responsibilities in EMP are presented in Table 7A.1.

The construction team will be supported by a number of specialist environmental and engineering contractors who are experienced in the marine environment.

Figure 7A.1: Illustrative Example of a Potential Core Project Team Structure



Please note: The onshore site manager and onshore environmental liaison officer will only be required where onshore infrastructure is constructed.

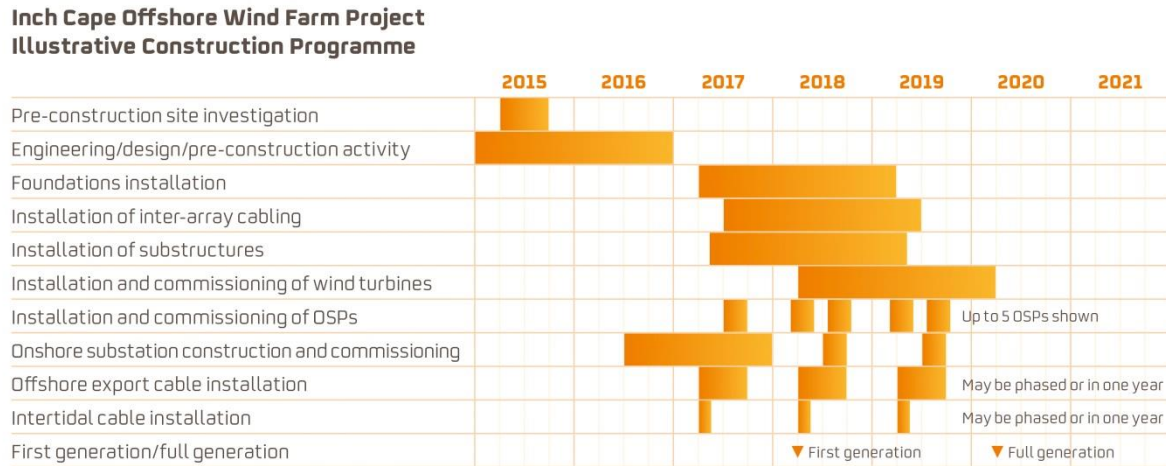
Table 7A.1: Contact Details for Staff with EMP Responsibilities

Contact	Position	Email	Telephone
TBC	Construction Manager	TBC	
TBC	HSE Manager	TBC	
TBC	Principal Contractor	TBC	
TBC	Onshore Site Manager	TBC	
TBC	Offshore Site Manager	TBC	
TBC	Environmental Manager	TBC	
TBC	Onshore Environmental Liaison Officer	TBC	
TBC	Offshore Environmental Liaison Officer	TBC	
TBC	Fisheries Liaison Officer	TBC	
TBC	Project Archaeologist	TBC	

7A.2.2 Key Programme Dates

An indicative construction schedule for the Project and the offshore transmission infrastructure is shown in Figure 7A.2.

Figure 7A.2: Indicative Project Programme



All durations are shown as windows for illustration.
Activities will not be continuous during these windows.
Overall durations may increase or decrease and the sequence may change.
Start and finish dates may change.

7A.2.3 Environmental Policies

The environmental policy is presented in Annex 7A.1. The delivery of the Project through the responsible operation of renewable energy generation assets forms a principle part of the environmental policy.

Repsol UK is in the process of developing the Health, Safety and Environment Management System (HSEMS). The EMP will comply with the HSEMS once it has been published.

7A.3 Scope and Implementation

7A.3.1 Scope of this EMP

This draft EMP is for use by those parties involved in the pre-construction, construction and operational activities associated with the Project.

7A.3.2 Responsibilities for Management and Implementation

The **HSE Manager** is responsible for:

- Preparing, updating and disseminating the “live” EMP in conjunction with the Consenting Manager and Environmental Manager;
- Ensuring all relevant HSE consents, licences and permits are obtained by the Principal Contractor and consent conditions are adhered to; and

- The implementation and auditing of the MPCP requirements.

The **Consenting and Environmental Managers** are responsible for:

- Preparing, updating and disseminating the “live” EMP in conjunction with the HSE Manager;
- The implementation and auditing of the environmental monitoring requirements;
- Updating consents and licenses; and
- The discharge of any consent conditions.

The **Construction Manager, Onshore Site Manager and Offshore Site Manager** are responsible for:

- ensuring the communication and implementation of the EMP; and
- ensuring compliance with the EMP on site.

The **Principal Contractor** is responsible for:

- ensuring the incorporation of the EMP into their, and any sub-contractors, site specific EMP and its implementation;
- providing support to the project HSE Manager and Environmental Manager to discharge consent conditions;
- providing access to documentation and/or personnel for all audits required;
- obtaining and complying with any necessary consents, licenses and permits required to comply with legislation, where they are not obtained by the company; and
- ensuring all contractor staff have the correct competence and qualifications.

All personnel working on the Project are responsible for ensuring adherence to this draft EMP.

7A.3.3 Competence, Training and Awareness

The project employs staff suitably trained to manage issues contained within this draft EMP.

As part of the selection process, the project team will select consultants and contractors which demonstrate understanding and compliance with environmental management and risk within their tenders.

A site induction will be provided to all contractors to ensure familiarisation with site conditions. The form of site induction may include a “kick-off” meeting, workshop, tool box talks or other formats as agreed between the project and the relevant party.

7A.3.4 Communications

The Construction Manager will be the designated point of contact for the Principal Contractor. The Construction Manager will ensure that regular projects meetings are held at a frequency to be agreed with the Principal Contractor. The Construction Manager that will ensure environmental issues will be discussed and reviewed as required.

The **Environmental Manager** will be responsible for ensuring that the Construction Manager is aware of progress and compliance issues associated with the awarded consents and any known environmental sensitivities and required mitigation that are relevant to the operation being undertaken.

The Environmental Manager will also be responsible for issuing Notices to Mariners (NTM) for environmental surveys. The Principal Contractor will be responsible for issuing NTM for relevant construction activities. All NTM will be released in accordance with the NTM Protocol (see Annex 7A.2).

7A.3.5 Continual Improvement

As part of the ICOL Environmental Management Systems, there is a commitment to undertake a periodic review process of this draft EMP and its implementation. Corrective and preventive actions raised during audits (to address non-conformances, non-conformities or other issues) will be tracked and the management will approve action close out. Audits will be organised by the HSE Manager.

Further monitoring and review arrangements will ensure the compliance of activities with applicable laws and authorisations.

The objectives of audits are to ensure:

- Periodic assessments are undertaken to confirm that the EMP processes are being implemented as planned and are effective. This will involve both internal assessments and, where appropriate, external assessments;
- All contractors and sub-contractors are complying with the EMP and with any relevant statutory provisions;
- The EMP standards are appropriate and are being used as intended;
- Line management can identify EMP areas of improvement, identify remedies and improvements through effective follow-up procedures;
- An annual management review of the EMP is carried out to identify and implement necessary improvements; and
- The findings and corrective actions from these audits and reviews are prioritised, tracked and used to systematically improve the performance and processes of the Project.

Contractors should ensure that a copy of calibration tests and certificates are presented where relevant and records of survey results and environmental performance are freely available when requested.

The timing of environmental audits will be agreed between the **Construction Manager** and the **Principal Contractor**. The Principal Contractor will be responsible for discussing and agreeing the results of the audits with the **HSE Manager, Environmental Manager, and Onshore or Offshore Site Manager**, as relevant, prior to any debrief with the Construction Manager. The contractor will be provided with a written record of the findings of any audit. A duplicate will be maintained within the Project database.

The Principal Contractor is required to contact the ICOL representative immediately should any environmental incident occur.

7A.4 Environmental Risks and Controls

7A.4.1 Emergency Preparedness and Response

In order to minimise impacts to the environment, the company policy is to ensure that there is a continuous capability for a rapid and effective response to any emergency occurring during current activities and all future operations.

The potential environmental impacts associated with the construction activities are presented within the Environmental Statement.

In order to minimise the potential for risk/impacts, the following procedures should be followed:

- An Environmental Mitigation and Monitoring Plan (EMMP), which will include the range of environmental mitigation measures and monitoring to which ICOL has committed (Table 7A.4) and the following to be developed post consent;
 - Including a Marine Mammal Mitigation Protocol (MMMP);
 - Including a Notice to Mariners (NTM) Plan (Annex 7A.2);
 - Including a Fisheries Liaison Protocol (Annex 7A.3);
 - Including an Archaeological Written Scheme of Investigation (WSI) (Annex7A.4);
- A Marine Pollution Contingency Plan (MPCP) (Section 7A.7); and
- A Scour Management Plan.

All contractors will be expected to submit site specific risk assessments incorporating method statements for review and approval by ICOL before works commence. The risk assessments will incorporate the requirements of this draft EMP.

7A.4.2 Reporting Incidents

ICOL is committed, through its Environmental Policy, to quick action and a proactive approach to learning in response to environmental incidents. In order to achieve this, prompt reporting of all environmental incidents is expected from all individuals and organisations. This is in addition to any legal requirements or other recognised industry best-practice.

Depending on the level of potential and/or actual impact, rapid escalation of the incident through ICOL and partner organisations may be required. Formal reporting criteria and guidance will be developed as roles are defined.

7A.5 Environmental Mitigation

This section of the draft EMP provides the basis for an EMMP and has been prepared to satisfy compliance with the Environmental Statement and anticipated consent conditions and ensure good environmental practice with regards to the construction of the Project.

7A.5.1 Requirements

ICOL and contractors shall comply with all consent and license conditions imposed on the construction works for the Wind Farm, OfTW and any other mitigation detailed in the Environmental Statement or subsequently agreed. Table 7A.2 provides a list of the consents and licenses which will be obtained. Copies of all consents and licenses will be provided in Annex 7A.7.

Table 7A.3 provides a summary of the documentation to be submitted prior to construction.

Table 7A.2: Summary of Consents & Licenses Obtained

Consent/License Name	Reference Number	Date of Issue
Section 36 of the Electricity Act (including Section 36A declaration)	TBC	TBC
Marine Licence(s)	TBC	TBC
Planning Permission	TBC	TBC
EPS Licence	TBC	TBC
Dredging and Disposal Licence (if necessary)	TBC	TBC
Cable Crossing/proximity agreements	TBC	TBC

Table 7A.3: Documentation to be Prepared Prior to Construction

Document to be Submitted	Information Required	Submit and Approve by:
Detailed schedule of planned construction and monitoring	Detailed construction works method statement which confirms final choices of materials to be used	3 months prior to construction works commencing
Transportation audit sheet	Details of numbers and types of vessels, routes, etc for all aspects of construction	Before construction (timeline to be defined)
Ecotoxicological hazard/risk assessment	Where chemicals to be used are not on the List of Notified Chemicals (Offshore Chemicals Regulations, 2002)	3 months prior to construction works commencing

Document to be Submitted	Information Required	Submit and Approve by:
Project Environmental Management Plan	Final PEMP including Marine Pollution Contingency Plan, Scour Management Plan, Marine Mammal Mitigation Plan, Protocol for Archaeological Discoveries, Protocol for Fisheries Incidents	3 months prior to construction works commencing
Notices to Mariners	Details of vessels and works to be carried out. For a full list of information see final version of Annex 7A.2	At least 10 days prior to works commencing on the generating site

Table 7A.4: A Summary of Mitigation as Stated in the ES

a. Marine Pollution Mitigation

Project Phase	Details
Pre-Construction Action	Vessels and plant relating to construction, operation and decommissioning activities will follow best practice and guidance for pollution at sea, detailed in the final EMP to reduce and coordinate response to pollution events if they were to occur. The final EMP will follow OSPAR, IMO and MARPOL guidelines and industry best practices regarding pollution at sea, this includes provision for storage of pollutants and identifies products suitable for use in the marine environment. The EMP will be finalised prior to construction.
Pre-Construction Action	All protective coatings and paints will be suitable for use in the marine environment. The coatings/paints should be utilised in accordance with best environmental practice.

b. Metocean and Coastal Processes

Project Phase	Details
Pre-Construction Action	A study will be carried out to predict the effects of secondary scour from cable protection and to inform design with the intention of reducing secondary scour. Scour protection will be built into any gravity based concepts (if these are employed).
Construction Action	If the GBS foundation option is chosen, sediment dredged during preparation work for installation will be reused within the works where practicable. This will manage the deposition of sediment across the Development Area.
Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable.

c. Benthic Ecology

Project Phase	Details
Pre-Construction Action	Vessels and plant relating to construction, operation and decommissioning activities will follow best practice and guidance for pollution at sea, detailed in the final Environmental Management Plan (EMP) to reduce and coordinate response to pollution events if they were to occur. The final EMP will follow OSPAR, IMO and MARPOL guidelines and industry best practices regarding pollution at sea, this includes provision for storage of pollutants and identifies products suitable for use in the marine environment,. The EMP will be finalised prior to construction.
Pre-Construction Action	The risk of non-indigenous species introduction will be managed through prevention methods by following best practice, for example the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM), and the Scottish Code of Practice on non-indigenous species. Details will be confirmed in the EMP prior to construction.
Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable which will reduce the impacts of loss of original habitat.
Construction Action	For any drilling activities, reversed circulation (air), sea water, water based mud, or synthetic (biodegradable) oil will be used. These compounds have been shown to have reduced environmental impacts over traditional oil based mud's, for example studies at some offshore drilling platforms using water-based drilling mud's have found no adverse effects (Daan and Mulder, 1996).

d. Natural Fish and Shellfish

Project Phase	Details
Pre-Construction Action	Cables will be specified to reduce electromagnetic field (EMF) emissions as per industry standards and best practice such as the relevant IEC specifications.
Construction Action	Piling operations will incorporate a soft start procedure which will reduce the potential for noise related fatality.
Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable which will reduce the potential for impacts relating to EMF

e. Marine Mammals

Project Phase	Details
Pre-Construction Action	<p>A mitigation protocol has been developed by the Statutory Nature Conservation Agencies in order to reduce risk of potential death/physical injury from noise sources to negligible levels (JNCC, 2010) which will be implemented by ICOL. The Project specific protocol will be detailed in the final EMP prior to construction and will reflect current guidance at the time of construction.</p> <p>Advances in technology may provide more effective means to aid, enhance or replace the MMO function. The feasibility of alternative approaches will be considered in consultation with regulatory authorities.</p>
Pre-Construction Action	Vessels and plant relating to construction, operation and decommissioning activities will follow best practice and guidance for pollution at sea, detailed in the final EMP to reduce and coordinate response to pollution events if they were to occur. The final EMP will follow OSPAR, IMO and MARPOL guidelines and industry best practices regarding pollution at sea, this includes provision for storage of pollutants and identifies products suitable for use in the marine environment. The EMP will be finalised prior to construction.
Pre-Construction Action	Defined navigational routes will be used by vessels. This will reduce the risk of collision with marine mammals.
Pre-Construction Action	Alternative mitigation techniques will be investigated prior to the finalisation of the construction method statement. Approaches will be confirmed following consultation with regulatory organisations. Adoption of any mitigation measures will be subject to an assessment of technical and commercial feasibility.
Pre-Construction Action	All materials used will be safe for use within the marine environment.

Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable which will reduce the potential for impacts relating to EMF.
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f. Ornithology

Project Phase	Details
Pre-Construction Action	Piling operations will incorporate a soft start procedure that will reduce the potential for noise related fatality on prey species of seabirds.
Pre-Construction Action	Defined navigational routes will be used by vessels. This will reduce the risk of disturbance to birds.
Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable. This will reduce the potential for impacts relating to the electromagnetic field (EMF) on some prey species of seabird.
Construction Action	A suitably qualified Ecological Clerk of Works will be appointed to the project. This will ensure compliance with mitigation and best practice is followed relating to disturbance of priority bird species (notably qualifying species from the Firth of Forth SPA).

g. Seascape, Landscape and Visual

Project Phase	Details
Pre-Construction Action	<p>Wind Turbine Generators (WTGs) will be placed in a regular grid subject to micro siting requirements;</p> <p>WTGs will all be of similar dimensions to hub height and blade tip subject to WTG and substructure design and installation specification;</p> <p>The WTGs will all be pale grey in colour with a semi-matt finish. This tends to reduce the distance over which the WTGs are visible, especially in dull or overcast conditions, which often occur. As offshore WTGs are often viewed against the sky, pale grey is the most appropriate colour as it is closest to that of the lower part of the sky under the most frequent UK weather conditions.</p>

h. Archaeology

Project Phase	Details
Pre-Construction Action	A Project specific Written Scheme of Investigation (WSI) will be prepared, in consultation with Historic Scotland, once the final layout of the Wind Farm and OfTW infrastructure is established. This document will be incorporated into the final Environmental Management Plan (EMP). The WSI will set out the design and implementation of a programme of detailed mitigation works. This will comply with guidance current at the time of its development (presently Wessex Archaeology, 2007).

Pre-Construction Action	<p>Mitigation strategies for known shipwreck sites will include maintenance of appropriate buffer zones between Project infrastructure including WTGs, OSPs, met masts, inter-array and Export Cables and known shipwrecks.</p> <p>Analysis of pre-construction survey data will be undertaken to refine the identified potential marine archaeology assets at infrastructure locations. Appropriate micro-siting allowance for identified assets will be agreed in consultation with Historic Scotland.</p> <p>Both the micro-siting allowance and exclusion zones will be detailed in the WSI described above. This will reduce any potential impacts on marine archaeology.</p>
Pre-Construction Action	<p>The Written Scheme of Investigation (WSI) will include a Protocol for Archaeological Discoveries (PAD) which will be prepared in consultation Historic Scotland. This will mitigate the risk of damage to any previously unrecorded archaeological remains</p>
Pre-Construction Action	<p>Mitigation relating to effects of the Wind Farm and OfTW on the setting of cultural heritage receptors will be as per SVLIA mitigation described above.</p>

i. Commercial Fisheries

Project Phase	Details
All Phases	<p>A regional Commercial Fisheries Working Group (CFWG) has been established to provide a forum for collaborative discussion and action in relation to offshore wind farm developments in the Forth and Tay area and their interactions with commercial fishing activities. The CFWG seeks to:</p> <ul style="list-style-type: none"> • Provide regular contact for representatives of commercial fishermen and the FTOWDG developers to promote communication and understanding; • Provide a forum to manage engagement through project(s) lifecycle with particular focus on consenting, pre-construction planning and construction activities; • Provide input to general approaches, procedures and protocols with respect to construction management plans and potential mitigation options, promoting standardisation where possible; • Agree specific offshore working practices relating to marine licence conditions where required; • Agree and maintain a current regional assessment of commercial fishing activities; and • Identify and develop opportunities between the fishing/renewables industries in the Forth and Tay area.

Project Phase	Details
Pre-Construction	<p>A construction management plan will be developed in consultation with fishing industry representatives which establishes a protocol for engagement between ICOL and the fishing industry. This will include details on:</p> <ul style="list-style-type: none"> • Communication channels between the fishing community and ICOL through all phases; • Protocol for the navigation of construction and operation vessels to and from the Development Area (e.g. use of transit lanes that will reduce interaction with fishing activities); • Procedures in the event of interactions between wind farm construction and operation and fishing activities; and • Protocol for the removal of temporary works post-construction including appropriate verification.
Construction Action	<p>500 m 'rolling' safety/exclusion zones around working areas during construction, decommissioning and major maintenance activities to exclude vessels not associated with the works. Consultation will be undertaken with relevant stakeholders to ensure effective implementation and management of safety/exclusion zones.</p>
Pre-Construction Action	<p>Modifications to bottom towed fishing gear are being investigated in consultation by the offshore renewables industry and the fishing industry which may better enable fishing activities within and around operational wind farms.</p>
Pre-Construction Action	<p>Structures within the Development Area will be marked and lit in accordance with International Association of Lighthouse Authorities (IALA) Recommendation O-139 on the Marking of Man-Made Offshore Structures (IALA, 2008). The final lighting and marking scheme will be agreed with the relevant stakeholders prior to construction.</p>
Pre-Construction and Construction Action	<p>Suitable and sufficient assessment will be undertaken to ensure that all safety risks are reduced as far as reasonably practicable.</p>
Construction Action	<p>Cables will be suitably buried or will be protected by other means when burial is not practicable which will reduce the risk to fishing vessels from snagging.</p>
Construction Action	<p>Promulgation of information and appropriate liaison will be carried out to ensure information on the works are circulated through agreed procedure e.g. Notices to Mariners, Kingfisher and other appropriate media to allow vessels to effectively and safely navigate around the proposed sites.</p>
Pre-Construction Action	<p>Defined navigational routes will be used by vessels. This will reduce the risk of disturbance to static gear.</p>

j. Shipping and Navigation

Project Phase	Details
Pre-Construction Action	WTGs will be designed in accordance with Marine Guidance Note (MGN) 371 (MCA, 2008a) and procedures put in place for generator shut down and other operational requirements in emergency situations to reduce impacts on Search and Rescue (SAR) provision.
Pre-Construction Action	WTGs will be designed and constructed to ensure that the minimum rotor blade clearance is at least 22 m above highest astronomical tide (HAT).
Pre-Construction Action	<p>An Emergency Response Co-operation Plan (ERCoP) will be established for the Project and put in place for the construction, operation and decommissioning stages. The ERCoP will be based on the MCA template and prepared in consultation with the MCA Search and Rescue and Navigation Safety Branches.</p> <p>An enhanced ERCoP will consider any site specific issues relating to the Project. It will include the principles of self-help with respect to SAR. Project staff will be given appropriate training to carry out emergency response capability identified through the ERCoP. This will enable ICOL to provide a level of self-help in the event of an emergency.</p>
Pre-Construction and Construction Action	The Wind Farm and OfTW structures will be marked on relevant United Kingdom Hydrographic Office (UKHO) admiralty charts. The Offshore Export Cable will also be charted, although whether the inter-array cables are shown will depend on the scale of the chart.
Pre-Construction and Construction Action	<p>Structures within the Wind Farm will be marked and lit in accordance with International Association of Lighthouse Authorities (IALA) Recommendation O-139 on the Marking of Man-Made Offshore Structures (IALA, 2008). The final lighting and marking scheme will be agreed with the relevant stakeholders prior to construction.</p> <p>This will include any temporary lighting and marking during the construction phase of the Wind Farm.</p> <p>Consideration will also be given to any additional Aids to Navigation that result as a requirement of the finalised Project layout.</p>
Pre-Construction and Construction Action	Promulgation of information and appropriate liaison will be carried out to ensure information on the works are circulated through agreed procedure e.g. Notices to Mariners, Kingfisher and other appropriate media to allow vessels to effectively and safely navigate around the proposed sites. An advanced level of promulgation of information will be carried out which is specifically targeted to receptors identified through consultation.
Pre-Construction and Construction Action	Appropriate marine co-ordination (through a dedicated marine coordination function) will be implemented. This will ensure that construction and support vessels do not create an unacceptable navigation risk.

Project Phase	Details
Pre-Construction and Construction Action	A risk assessment will be carried out to determine any requirements for guard vessels during the construction phase. This will ensure that construction activities are appropriately protected and third parties are sufficiently alerted of construction activities.
Pre-Construction and Construction Action	Additional temporary buoyage, relating to partially constructed works, will be determined through risk assessment and agreed in consultation with the NLB. This will guide vessels around temporary navigational hazards prior to implementation of the final marking and lighting scheme.
Pre-Construction and Construction Action	All vessels will be fit for purpose for construction and operation activities as per MCA, international and project safety management system requirements. This will ensure that navigational risks are appropriately managed.
Pre-Construction and Construction Action	Cables will be suitably buried or will be protected by other means when burial is not practicable. They will be specified to reduce EMF emissions as per industry standards and best practice such as the relevant IEC specifications. This will reduce the risk of snagging, and will reduce the potential for impacts relating to EMF. Consultation will be undertaken with appropriate stakeholders to ensure minimum draft requirements are considered.
Pre-Construction and Construction Action	A monitoring plan will be determined for the Offshore Export Cable, which considers higher risk areas such as anchorage locations. Appropriate remedial action will be taken where risks have been determined to be unacceptable.
Construction Action	500 m 'rolling' safety/exclusion zones around working areas during construction, decommissioning and major maintenance activities to exclude vessels not associated with the works. Consultation will be undertaken with relevant stakeholders to ensure effective implementation and management of safety/ exclusion zones.

k. Military and Civil Aviation

Project Phase	Details
Pre-Construction Action	<p>Mitigation measures relate to lighting, and marking of works within the Development Area and promulgation of activities. The final scheme will comply with current guidelines and be agreed with the appropriate stakeholders. Current guidance is as follow:</p> <ul style="list-style-type: none"> • Article 220 (CAA, 2012) sets out the mandatory requirements for lighting of offshore WTGs. • CAP 437: Standards for Offshore Helicopter Landing Areas (CAA, 2010) sets out the lighting required to facilitate helicopter winch operations to WTG helicopter platforms conducted by day in visual meteorological conditions. The requirement determines installation of 16 – 60 candela steady green lights to indicate to a pilot when it is safe to operate. • Additional lighting may be required to mitigate the risk to winching operations (onto the WTGs or OSPs) and the risk to SAR operations. Requirements are in accordance with a CAA Policy Statement (CAA, Nov 2012) (Technical Appendix 20B). • The MCA has requested that "all lights should be under the control of the Wind Farm Control Centre or, out of hours, a person who has rapid access to control of the Wind Farm lighting and turbines so that they can be switched off/on as required by the emergency situation". CAA policy statement (November 2012). • Information will be circulated to relevant military and aviation stakeholders including NATS, Ministry of Defence, and RUK. Information on potential aviation obstructions will be promulgated within the UK Integrated Aeronautical Information Package (UK IAIP) and notified to the Defence Geographic Centre for marking on aeronautical related charts and documentation.
Pre-Construction Action	<p>In relation to Buchan Air Defence Radar, additional information shall be provided to the MOD as layout and turbine height options within the Development are considered, to allow the MOD to further refine an impact assessment.</p> <p>If there is a residual unacceptable impact, implementation and integration of a technical mitigation solution will be agreed with the MoD in collaboration with other beneficiaries of the mitigation solution..</p> <p>Technical mitigation, if required, will most likely be in the form of modifications or upgrade to the Buchan T92 ADR.</p>
Pre-Construction Action	<p>Implementation and integration of technical mitigation solution will be agreed with the MoD in collaboration with other beneficiaries of the mitigation solution.</p>

I. Other Human Activities

Project Phase	Details
All Phases	<p data-bbox="523 344 831 376">Subsea Cables and Pipelines</p> <p data-bbox="523 396 1402 555">Prior to construction a crossing agreement with the pipeline operator will be concluded to ensure that the Offshore Export Cables are designed to safely cross the line of an existing gas pipeline in the Firth of Forth. The agreement would include definition of appropriate construction and maintenance methods to prevent any adverse impacts on the integrity or operation of the gas pipeline.</p> <p data-bbox="523 575 1402 763">Consultation with NGG Transco will be maintained throughout the construction process to ensure that the appropriate construction methodologies and operations agreed in the crossing agreement are applied when crossing the gas pipeline with the proposed Offshore Export Cable. The measures agreed in the crossing agreement will also be included within the health and safety risk assessment prior to construction.</p>
All Phases	<p data-bbox="523 799 839 831">Unexploded Ordnance (UXO)</p> <p data-bbox="523 851 1402 1039">A UXO threat assessment will be undertaken prior to construction and risk mitigation measures will be implemented with regard to all hazards. All practicable mitigation measures to minimise the risk of health and safety incidents associated with UXO will fully developed prior to construction and as per standard industry practice and included in the Project health and safety plan. Specific measures include the following:</p> <ul data-bbox="571 1059 1402 1742" style="list-style-type: none"> <li data-bbox="571 1059 1402 1126">• Survey will be undertaken prior to any intrusive works to confirm the presence and form of any known or potential UXO. <li data-bbox="571 1146 1402 1305">• Survey anomalies which indicate the presence of UXO will be avoided through micro-siting of all infrastructure works which could disturb UXO. Establishment of a formal QA process with sign-off certification of the design process from a UXO specialist to reduce risks to As Low As Reasonably Practicable (ALARP). <li data-bbox="571 1326 1402 1451">• The scope and extent of further surveys to detect the presence of UXO in advance of major maintenance work would be considered in advance of scheduling and undertaking maintenance which has the potential to affect UXO. <li data-bbox="571 1471 1402 1630">• A UXO co-ordinator will be part of the vessel crew on relevant construction and maintenance vessels involved in activities where there is a risk of encountering previously unidentified UXO to ensure that all safety procedures and responses are adhered to during operations and in the event of UXO being encountered; <li data-bbox="571 1650 1402 1742">• Crew on board all vessels involved in project construction, maintenance and support during operations will be regularly briefed on munitions safety procedures and awareness; <p data-bbox="523 1762 1402 1830">A UXO management procedure will be put in place to manage any unanticipated finds of suspected UXO.</p>

Project Phase	Details
Pre-Construction Action	<p>Marine Recreational Activity</p> <p>The following measures will be adopted:</p> <ul style="list-style-type: none"> • provision of safety/exclusion zones around construction activities (500m); • The Wind Farm and OfTW structures will be marked on relevant United Kingdom Hydrographic Office (UKHO) admiralty charts. The Offshore Export Cable will also be charted, although whether the inter-array cables are shown will depend on the scale of the chart. • Promulgation of information and appropriate liaison will be carried out to ensure information on the works are circulated through agreed procedure e.g. Notices to Mariners, Kingfisher and other appropriate media to allow vessels to effectively and safely navigate around the proposed sites.
	<p>Military Practice and Exercise Areas</p> <p>The following measures will be adopted:</p> <ul style="list-style-type: none"> • To mitigate any impact on the military exercise area during the construction phase of the proposed Project, on-going consultation with the MOD will be maintained to determine the frequency and nature of their activities so that unnecessary disruption is avoided. The presence of the PEXA will also be included in any construction risk assessments, due to the nature of the practice activities in this area. • Promulgation of information and appropriate liaison with the MOD will be carried out to ensure information on the works are circulated through agreed procedure e.g. Notices to Mariners, Kingfisher and other appropriate media.

m. Socio-Economics

Project Phase	Details
All Phases	<p>ICOL will commit to a protocol to give local contractors the opportunity to tender for work arising from Project capital and operational expenditures. The protocol would ensure that local contractors with the relevant skills and experience will be able to access the procurement process through meet the buyer events and other initiatives.</p> <p>ICOL has worked closely with Scottish economic development agencies to promote opportunities since the inception of the Project and this approach will continue throughout the Project life.</p>

7A.6 Monitoring Approach

Specific monitoring commitments are outlined in Table 7A.4 above. ICOL propose that final monitoring requirements are established in consultation with Marine Scotland (Policy, Licencing and Science), stakeholders and other offshore wind developers where relevant.

ICOL support the development of appropriately designed monitoring plans to fulfil specific agreed outcomes which are based on the following principles:

- Ensure all monitoring can be undertaken in accordance with ICOL health, safety and environmental policy.
- Clear definition of concern and objective; it is essential to understand what question we are attempting to answer.
- Robust sampling design; ensure statistically meaningful and repeatable.
- Understand if the outputs can achieve required precision; including perceptible changes out-with natural variation.
- Identify appropriate techniques and tools and consider new technology, as far as is reasonably practicable.
- Utilise lessons learned from previous monitoring programmes and other industries.
- Avoid unnecessary duplication of monitoring across projects/regions.
- Aim for consensus statutory stakeholders and other relevant parties.
- Ensure monitoring design is developed in consultation with independent experts and the results are subject to appropriate peer review.

ICOL believe that a collaborative approach to monitoring may bring wider benefits to regulators, stakeholders and the offshore wind industry. ICOL are supportive of the principles underpinning the Offshore Renewables Joint Industry Programme and are actively involved in this initiative, which is a collaboration between offshore wind developers, DECC, Marine Scotland (Policy and Science) and The Crown Estate. This type of approach may enable development and delivery of a more wide ranging environmental research, monitoring, and mitigation programme than could be delivered by any single project. Collaboration may be possible at a regional, Scottish or UK level.

7A.7 Marine Pollution Contingency Plan

7A.7.1 Overview and Scope

This section of the EMP is the draft MPCP, it has been prepared to satisfy the relevant legislation and ensure good environmental practice with regards to the construction of the Wind Farm and OfTW. This may become a separate document during the construction phase.

This document will:

- Define key construction activities, vessels that will be deployed, and control measures being adopted to minimise potential pollution incidents from occurring;
- Define roles and responsibilities; and
- Define the marine pollution contingency plan to be applied during the construction phases of the aforementioned projects.

The MPCP is designed to minimise environmental impacts in response to an oil spill or other marine pollution event (e.g. grout or chemical spillage) associated with the Project. The plan also covers the management of environmental risks related to spills and objects lost overboard from vessels, and the relevant authorities to contact in case of an emergency.

In accordance with Marine and Coastguard Agency (MCA) guidelines, during construction the focus will be on prevention and avoidance of contingency situations through risk identification and management, and through stringent controls being put into place (e.g. where refuelling at sea has to take place, this shall be done according to industry standards).

However, if an incident occurs the emphasis will shift to marine pollution control to minimise the discharge and to mitigate its effects. There will be products, systems or services for controlling, clean up and minimising marine pollution, e.g. oil absorbents and booms, pollution prevention training, monitoring and clean up services.

The primary aim of this response strategy is to:

- Ensure personnel safety and integrity of the vessels;
- Minimise potential environmental and socio-economic impact and ensure a fast recovery to affected resources;
- Where practicable, utilise the prevailing environmental conditions to complement the response; and
- Utilise pre-planned actions to previously identified incident situations.

The following documents are included in the annex section:

- Pollution incident Report Form (Annex 7A.8) (to be developed post consent);
- Contacts List (Annex 7A.9)(to be developed post consent); and
- Roles of statutory bodies in response to a Marine Pollution Incident. (Annex 7A.10)(to be developed post consent).

7A.7.2 Legislative Compliance Requirements

The following pieces of legislation are relevant to this plan (this is indicative and not a complete list):

- International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (the "OPRC Convention");

- Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998;
- Merchant Shipping (Prevention of Pollution: Substances Other than Oil) (Intervention) Order 1997;
- Civil Contingencies Act 2004;
- Merchant Shipping Act 1995;
- Prevention of Oil Pollution Act 1971;
- Marine (Scotland) Act 2010;
- MARPOL 73/78; and
- Offshore Installations (Emergency Pollution Control) Regulations 2002, made under section 3 of The Pollution Prevention and Control Act 1999.

7A.7.3 Collision Prevention

Multiple construction vessels may be active concurrently within the boundaries of the wind farm during construction. Wind turbines are designed to withstand vessel impact up to a certain level.

To prevent collision by other vessels straying into the wind farm the actions defined in Table 7A.4 (j) will be taken

Where markings and lighting are proposed, these would be in line with Recommendation O-139 0 The Marking of Man-Made Offshore Structures (IALA, 2008) and subject to consent from the Northern Lighthouse Board, to which a statutory sanction application would be submitted.

7A.7.4 Safety/Exclusion Zones

It is standard safe working practice to establish exclusion zones around areas of vessel activity that present a navigational safety risk to marine users. This includes providing information of planned works and a requested safe clearance distance. These safety zones are generally 500 m and roll with the vessel during its operation.

Safety Zones, and/or any other exclusions required, will be implemented and communicated through standard protocol (i.e. Notice to Mariners). A risk assessment will be carried out to determine any requirements for guard vessels during the construction phase. This will ensure that construction activities are appropriately protected and third parties are sufficiently alerted of construction activities.

The requirement for operational safety/exclusion zones will be considered as part of the Project safety case on review of the mutual risks posed, post construction, to the Wind Farm and third parties and will be dependent on the outcomes of the detailed engineering phase.

7A.7.5 Maritime Aid to Navigation Requirements for the Construction Phases

Prior to construction, cardinal buoys may be in place to clearly identify the boundaries of the wind farm. They may be left in place until relevant navigation lighting is installed.

Diagram to define layout of Inch Cape structures will be inserted when available.

7A.7.6 Notices to Mariners

Communication of maritime hazards related to the construction of the wind farm will be issued before the start and at regular intervals throughout the construction phase.

7A.7.7 Fisheries Liaison Officer

An FLO will be employed and managed by the Environmental Manager. Their roles and responsibilities will be as follows:

- Point of contact and lead interactions with Fishing Industry Representatives;
- Meeting arrangements with local fishermen's groups;
- Meeting and liaison with the fisheries industry bodies (e.g. Scottish Fishermen's Federation and the Inshore Fisheries Groups);
- Direct line of contact for the fishing industry pre and during construction;
- Planning assistance for offshore movements and works, this to include near shore transit route and work routes, and site working zones; and
- Liaison between contractors and fishermen with regards to fisheries issues.

7A.7.8 Potential Sources of Pollution

This plan recognises the different types of pollution incidents that can occur and the response will vary depending on the type of incident, and where it occurs. To date there are two types of pollution incidents which have been identified as potential risks on the Project.

- Oil and Chemical Spills; and
- Objects Lost Overboard.

The MCA has a three tiered approach (Table 7A.5) to describing the scale of an incident under their National Contingency Plan (which this plan follows). These tiers are not given generic quantification, assessments are made based on potential risks in specific areas and responses are planned accordingly, therefore the quantities noted below must be considered as indicative only. The incident response applicable to each tier is defined in Table 7A.6.

Table 7A.5: Three Tiered Approach Defined by the MCA for Describing the Scale of an Oil/ Chemical Incident

Tier 1	A small operational spill employing local (i.e. in house) resources during any clean up (e.g. <1,000 litres).
Tier 2	A medium sized spill, requiring external assistance and resources, which may include regional resources (e.g. ≥1,000-<150,000 litres).
Tier 3	A major spill requiring national assistance and resource. The National Contingency Plan will be activated in this case (e.g. ≥150,000 litres).

Table 7A.6: Incident Response System to Spillages Originating from Offshore Wind Farm Equipment

Tier	Response Team	Function
1	Onsite Support Vessel	<p>Small spills where events can be controlled by onsite resources.</p> <p>A tier 1 spill is not likely to require intervention by an external incident response organisation or external authorities.</p> <p>The United Kingdom Hydrographic Office (UKHO) will be notified.</p> <p>The MCA will be notified.</p>
2	Onsite Support Vessel Emergency Response Contractor (ERC)	<p>Medium sized spills that are required to be handled by the Emergency Response Contractor (ERC) or other external assistance as nominated within this plan.</p> <p>The MCA will be notified and the MCA and Local Authorities may be required to assist them.</p> <p>The ERC will be in overall control of the response.</p> <p>Where the MCA or Local Authorities are required to be involved the ERC will coordinate their response with that of the MCA and Local Authorities as appropriate.</p>
3	Onsite Support Vessel ERC MCA Local Authorities	<p>Large sized spills that require the invocation of the National Contingency Plan and Local Authority Emergency Response Plans (e.g. involving a vessel colliding with an Inch Cape Structure). This is not considered to be possible that this level will occur from the Project unless from third party sources</p> <p>The ERC will coordinate their response with that of the MCA local Authorities and the Secretary of State's Representative for Maritime Salvage and Intervention (SOSREP).</p>

This plan defines the response applicable to pollution incidents occurring in the following locations:

- In harbour;
- During transit to and from the Wind Farm and involving vessels at the offshore site; and
- Fully or partly installed WTGs, OSPs and associated equipment.

The main potential sources of pollution have been identified as construction vessels, WTGs and OSPs as detailed below:

Wind Turbine Generators and Offshore Substation Platforms

The relevant license will require this plan to include provision for safeguarding against releases of oil from the WTG nacelles into the sea.

Oil sources within the nacelle will be identified once a WTG model has been selected, however it is intended that these will be in volumes considerably smaller than on the construction vessels.

At this stage the number and design of OSPs has not been finalised. Once this is done, an accurate measurement of their pollution potential will be possible.

To reduce the potential for pollution incidents arising, the WTG and OSP structures will be designed for containment of spillage. Details will be added when known.

7A.7.9 Coordination

There will be a marine coordination centre (MCC) to coordinate all offshore Project construction activities. This will control all vessel movements to, from, and within the Project.

The MCC will be responsible for obtaining information and coordinating all responses within this contingency plan. The MCC will notify the MCA if spillage incidents occur and when the response has been concluded.

The MCC will be responsible for ensuring that the list of construction vessels is up to date.

On behalf of the Principal Contractor (PC), the MCC will issue NTMs as required. NTMs will be issued in the format as outlined in Annex 7A.2(to be developed post consent).

MCC contact details Annex 7A.9 (to be developed post consent).

7A.7.10 WTG Emergency Shutdown

During the construction phases the WTGs will be live tested as part of the installation and commissioning process. There may also be a phased handover of completed installations with installed WTGs being in operation during the construction phase.

In the event of an emergency situation being notified to the MCC during the construction phase at a time when any WTGs are in the active state, as appropriate the WTGs may be shut down and blades locked in a fixed position until notification from the relevant emergency services that it is safe to resume operation.

7A.7.11 Roles and Responsibilities

Principal Contractor

In the event of an oil or chemical spill during construction the principle contractor will be responsible for implementing an immediate response proportionate to the size of the spill and in accordance with SOPEP procedures and Marine Pollution Response.

Installation Contractors

The owners and masters of ships and the operators of offshore installations bear the primary responsibility for ensuring they do not pollute the sea.

For vessels and rigs involved in the wind farm construction, in the event of the spill it is the vessel master's responsibility to report the incident to the MCA and MCC and to implement appropriate MARPOL approved SOPEP.

Such plans are approved by a classification society or flag state and is required under regulation 26, Annex 1 of MARPOL 73/78.

Other Third Parties

The procedures detailed in this plan provide guidance for dealing with the pollution aspect of an emergency and assume that it is safe to undertake the spill response operation. Oil drifting towards shore or neighbouring installations may instigate the activation of 3rd party plans.

The following 3rd Party Plans may become involved in the event of a pollution incident:

- Harbour Authorities - Harbour Authorities are responsible for ensuring that their ports operate in a manner that avoids marine pollution and for responding to incidents within their limits.
- Local Authorities - In the event of any incident which may possibly lead to or require shoreline clean-up operations the local authority will be informed. The local authorities activate their own call out procedures in accordance with their own shoreline response plans.
- MCA - The Merchant Shipping (Oil Pollution Preparedness, Response and Co-Operation Convention) Regulations 1998 require all ships, offshore installations, ports and harbours to report all incidents of pollution to the MCA. Major spills including those that threaten the shoreline may require the activation of the MCA's National Contingency Plan. The vessel master will inform the MCA of an incident for which they are responsible. The Principal Contractor's MCC will inform the MCA about an incident arising from wind farm structures. The MCA will then determine whether assistance from other 3rd parties is required.
- The National Contingency Plan - The National Contingency Plan is not an operations manual, rather it is a guide to the role of the MCA, agencies and organisation and their responsibilities and involvement in dealing with oil at sea and along the shoreline. The National Contingency Plan also sets out the UK Government's policy for dealing with pollution at sea.
- UKHO - The UKHO has responsibility for producing admiralty charts and issuing Notices to Mariners for UK waters. All objects dropped overboard (including wind farm structure/equipment during the installation process) which could present a hazard to shipping will be notified to UKHO immediately by the Vessel Master for inclusion in Admiralty Charts as applicable. The Vessel Master should also make the MCC aware of dropped objects for future NTMs. Collapse of any wind farm structure that may present a hazard will be notified to the UKHO by MCC; it should be noted that this occurrence is considered to be extremely unlikely.

7A.7.12 Marine Pollution Contingency Procedures

The final EMP will define the procedures applicable for the following pollution incidents:

- Incidents occurring on the quayside;
- Incidents during loading/unloading operations, in transit or during installation activities; and
- Incidents involving fixed installed structures and offshore substation platforms.

In order to familiarise personnel with the use of this plan, the PC will conduct exercises on a regular basis. These will either be paper exercises to verify communication procedures or operational exercises involving deployment of personnel, equipment and materials.

Procedure for Incidents Occurring on the Quayside

This section covers pollution incidents that may arise from infrastructure and equipment located on the quayside prior to loading or subsequent to unloading operations

Spillage resulting from structures and equipment (e.g. shore based crane) is included in this contingency.

Any such incident will be communicated to the MCC immediately (by the vessel master or other responsible person) using the 3 tier classification table (see Table 7A.5) to classify the scale of the incident.

Recovery/clean-up operations will be the responsibility of the PC and carried out with the local harbour authority and in compliance with the Harbour Authority's pollution/spillage contingency plan.

Procedure for Incidents Occurring During Loading/Unloading, Transit or Installation

This section covers the procedures to be followed in the event of oil/ chemicals spill from a vessel and recovery of objects lost overboard from a vessel:

- Incidents occurring in the harbour during loading/unloading operations;
- Incidents occurring during transit to/from the offshore site; and
- Incidents occurring during installation activities.

Procedure for Oil/ Chemical Spill from Vessels

This section details the procedures to be followed for spillages arising from vessels during loading/unloading operations, in transit to/from the Development Area, and during installation activities

This procedure includes the response to any escape of oil/fuel/chemicals arising from objects (including wind farm structures and equipment) lost overboard from vessels during loading/unloading operations, in transit to/from the offshore site, and during installation activities.

Pollution arising due to spills from construction vessels at sea or in harbours is covered under MARPOL convention 1978 regulations.

Each vessel will have its own SOPEP approved by the MCA or international equivalent, including mandatory reporting actions and therefore their incident response is outside the scope of this document.

In addition to enacting mandatory requirements, all oil/fuel/chemical spillages from construction vessels are to be evaluated by the Vessel Master using the three tier classification system as detailed in Table 7A.5 and reported to MCC.

In the case of significant spillage of grout during an installation, the Vessel Master will notify the MCA of the location and size of the spillage.

The MCC will complete a Pollution Incident Report for any spillages (to be developed post consent) (Annex 7A.8).

Procedure for Unintentional Loss of Objects Overboard from Vessels

This section details the procedures to be followed for the unintentional loss of objects overboard from vessels during loading/unloading operations, in transit to/from the Development Area, and during installation operations.

Pollution arising due to unintentional loss of objects overboard from construction vessels at sea or in harbour is covered under MARPOL Convention 1978 Regulations.

In addition to enacting mandatory requirements, the GPS position of objects seen to be lost overboard will be taken immediately. Objects lost overboard unseen during transit will be identified by means of a loading/unloading inventory. A seabed survey of the transit route to identify the location of these objects will be undertaken.

Objects lost overboard which constitute a possible hazard to shipping will be immediately notified to UKHO by the Vessel Master. All objects lost overboard which require recovery must be notified to MCC by the Vessel Master. MCC will subsequently notify the Principal Contractor.

Recovery of objects lost overboard will take place as soon as practicable depending on the nature of the object and the hazard to shipping posed. Risk assessment and a method statement for recovery will be produced including a final method of disposal of the recovered material.

A post-construction seabed survey will be carried out on the Development Area to confirm that no unknown construction debris is present which may cause a maritime obstruction.

Procedures for Incidents Involving Fixed Installed Structures

This section details the procedures to be followed in the event of an escape of oil/fuel/chemicals or other liquid substance from a fully or partly installed structures or associated equipment.

The principle contractor will adopt the MCA's method of categorising pollution incidents in order to identify the response required.

Where natural dispersion/degradation of any spillage is not an appropriate response the primary objective will be to contain the spill, and remove it using suitable apparatus. The ERC will be responsible for carrying out the removal operation and assisting with temporary storage.

The collection, storage, treatment and disposal of any contaminated waste materials produced during clean-up operations will be managed using waste management procedures of the ERC, Harbour Authorities and PC onshore site waste management plans as applicable.

The ERC will be responsible for identifying and applying an appropriate solution to any spillage incident. Should the use of chemical dispersants/oil treatment products be required the ERC will ensure that all necessary permissions and conditions are complied with prior to usage, and reporting requirements after usage are fulfilled.

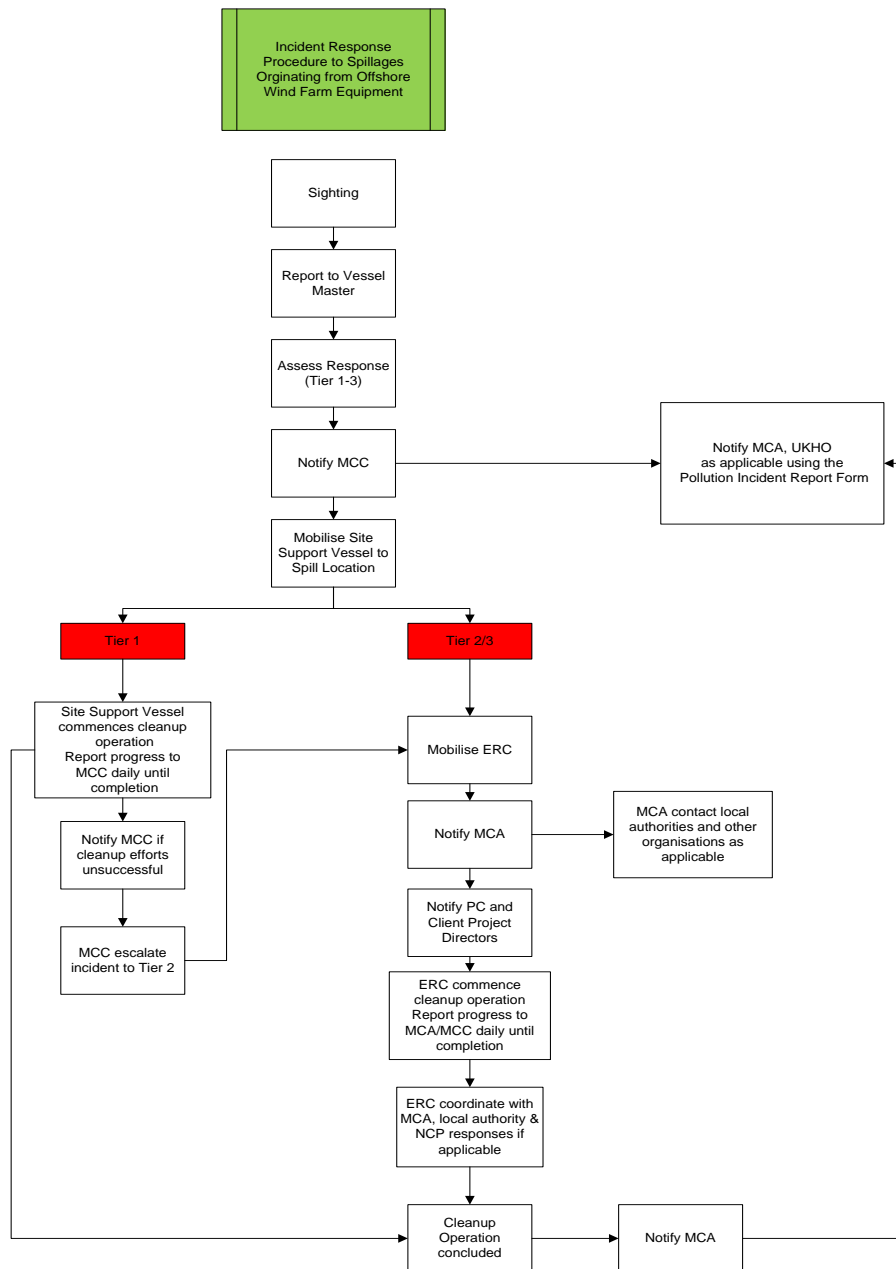
Procedure for Oil/ Chemical spill from Structures

Oil/fuel/chemical or other liquid spillage originating from installed (or partly installed) wind farm equipment will be the responsibility of the PC and will be covered by procedures including those listed below. This includes spillage resulting from collision with structures or the collapse of a structure.

In the event of a spillage sighting originating from Project structures (or equipment) the following actions (also illustrated in Figure 7A.3) must be taken:

- All spillage sightings must be reported to the Vessel Master immediately;
- The Vessel Master must notify the MCC identifying the location and giving an initial indication of the size of the spill (based on the 3 Tier system – Table 7A.5), source of the spillage if identifiable, and other information as applicable to complete the Pollution Incident Report Form (to be developed post consent) (Annex7A.8).
- MCC will direct the onsite support vessel to the location;
- The onsite support vessel will confirm the spillage assessment based on the 3 Tier system and notify MCC;
- The onsite support vessel will commence cleanup/containment operations as applicable;
- MCC will be responsible for completing the initial Pollution Incident Report Form which will be used to notify MCA, UKHO, the PC and other relevant authorities. Subsequent reports will be submitted on a daily basis until the spillage incident is cleared;
- The responsibility for elevating and incident classification from Tier 1 to Tier 2 lies with the MCC;
- On assessment of a Tier 2/3 incident MCC will immediately mobilise the ERC and notify MCA, and the PC and client Project Directors; and
- For Tier 2/3 responses the ERC will coordinate their activities with the MCA and any local authorities as required.

Figure 7A.3: Actions to be Taken in the Event of a Spillage Sighting Originating from Structures or Other equipment



Procedure for Collision with a Structure

This section details the procedures to be followed if collision with a structure occurs that may cause a pollution incident, i.e. an aircraft or large vessel collision (N.B. structures have been designed to withstand impact from construction vessels during construction activities).

In the event of a significant collision with a structure the following actions will be undertaken:

- An inspection will be conducted promptly to check the integrity of the structure and equipment for loss or potential loss of oil/fuel/coolants etc.;
- Any spillage which is contained within the structure will be cleaned up and disposed of; and

- Any spillage not contained within the structure will be controlled using the procedures described elsewhere in this plan.

Procedure for Collapse of a Structure

This section details the procedures to be followed after collapse of a wind farm structure from collision or other causes such that it may cause a pollution incident or a danger to shipping.

Where collapse occurs, the following actions will be taken:

- Exact location to be notified to UKHO;
- Marker buoys placed if required;
- Notice to Mariners;
- Pollution control will commence as described elsewhere in this plan; and
- Recovery of the structure will be effected as soon as practicable.

Before works commence, the contractors are required to produce risk assessments and method statements for recovery that include the final method of disposal of the recovered material.

7A.1 ANNEXES

Annex 7A.1.1 – Inch Cape Offshore Limited Environmental Policy

Annex 7A.1.2- Notice to Marine Planners

Annex 7A.1.3- Fisheries Liaison and Response Plan

Annex 7A.1.4- Archaeology Written Scheme of Investigation

Annex 7A.1.5- Marine Mammal Mitigation Protocol

Annex 7A.1.6- Appropriate Assessment Findings

Annex 7A.1.7- Authorisations, Consents and Permits

Annex 7A.1.8- Pollution Incident Report Form

Annex 7A.1.9- Contacts List

Annex 7A.1.10- Roles of Statutory Bodies in Response to a Marine Pollution Incident

Annex 7A.1.11- Notification Form

Annex 7A.1.12- Mobilisation Form

Annex 7A.1.1 ICOL Environmental Policy

This is available and included as PDF on the Repsol Q drive here:

Q:\Project 2 - Inch Cape\Phase 1 - Conceptual Phase\Environmental Statement\ES
CHAPTERS\Chapter 7 Project Description\Technical Appendices

Annex 7A.1.2 Notice to Mariners Plan

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.3 Fisheries Liaison and Response Plan

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.4 Archaeology Written Scheme of Investigation

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.5 Marine Mammal Mitigation Protocol

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.6 Appropriate Assessment Findings

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.7 Authorisations, Consents and Permits

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.8 Pollution Incident Report Form

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.9 Contacts List

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.10 Roles of Statutory Bodies in Response to a Marine Pollution Incident

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.11 Notification Form

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP

Annex 7A.1.12 Mobilisation Form

TO BE PREPARED – NOT AVAILABLE IN DRAFT EMP