PSE Kinsale Energy Limited

Kinsale Area Decommissioning Project

Draft Environmental Management Plan

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1 Introduction

1.1 Overview

This draft Environmental Management Plan (EMP) has been prepared by Arup on behalf of PSE Kinsale Energy Limited (Kinsale Energy) for the proposed decommissioning of the Kinsale Area gas fields and facilities, which are coming to the end of their productive life ('the proposed decommissioning works').

1.2 Purpose

The purpose of this draft EMP is to provide a framework that outlines how Kinsale Energy and any contractor(s) appointed will manage, and where practicable, minimise negative environmental effects during the decommissioning works.

This draft EMP identifies the minimum requirements with regard to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout the decommissioning works. In addition to compliance with this draft EMP, the contractor(s) and sub-contractors will also need to comply with all legislation and bylaws relating to their activities.

This draft EMP has been produced and accompanies the application for consent, to ensure compliance with legislative requirements and the Environmental Impact Assessment Report (EIAR) that has been prepared for the proposed decommissioning works.

1.3 Approach

This draft EMP will form the basis of all method statements to be developed by the contractor(s) and any method statement will need to incorporate at a minimum, all methods and measures outlined herein. The draft EMP provides a framework to:

- Describe the programme for environmental management during the decommissioning works;
- Implement those monitoring and mitigation measures identified in the EIAR;
- Outline the principles and minimum standards required of the contractor(s) during the development of the detailed EMP (and associated Method Statements) and throughout the decommissioning works;
- Identify the relevant roles and responsibilities for developing, implementing, maintaining and monitoring environmental management; and
- Outline the procedures for communicating and reporting on environmental aspects of the proposed development throughout the decommissioning works.

This draft EMP will be expanded and updated prior to the commencement of any activities on site. Following appointment, the contractor(s) will be required to develop more specific Method Statements and submit a more detailed (bespoke, contract-specific) EMP that is cognisant of the proposed activities, vessels, equipment and plant usage and monitoring requirements for the proposed development. This draft EMP should not be considered a detailed Method Statement which will be the responsibility of the contractor(s) appointed to undertake the individual works. The appointed contractor(s) will implement appropriate procedures and progress this documentation prior to commencement of the decommissioning works, but will, as a minimum, include the measures outlined herein.

This draft EMP includes typical types of methods, plant and equipment which are likely to be used by any contractor(s) appointed. This allows the potential impacts to be appropriately assessed for the purposes of both Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) prior to determining whether to grant the relevant statutory consent for the decommissioning works.

1.4 Structure

This draft EMP has been structured as follows:

- Section 1 introduces the proposed decommissioning works and outlines the purpose of the draft EMP;
- Section 2 describes in detail the proposed decommissioning works;
- Section 3 describes inter alia, indicative decommissioning phasing, typical methods and general activities required for the proposed decommissioning works;
- Section 4 sets outs the framework and mechanisms through which environmental requirements would be managed;
- Section 5 outlines the procedures to be employed during the decommissioning works to manage environmental aspects;
- Section 6 describes the general measures to be implemented, as far as practicable, during the proposed decommissioning works; and
- Section 7 details specific environmental requirements identified in the EIAR.

1.5 Detailed EMP

The contractor(s) appointed for the decommissioning works will be required to prepare a more detailed EMP. The detailed EMP will be provided to relevant statutory authorities, including the Department of Communications, Climate Action and Environment (DCCAE) and Cork County Council (CCC), for consultation and approval in advance of any works on site.

The contractor(s) will be required to develop a detailed EMP that:

- incorporates all mitigation measures specified in the EIAR and this draft EMP;
- incorporates any conditions that are prescribed as part of the consent(s) for the proposed decommissioning works;
- incorporates design and decommissioning details described in the EIAR and ensures there is no material change in terms of significant effects on the environment; and
- Where practicable the contractor(s) should seek to identify opportunities for further reducing significant negative environmental effects and to implement best practice in as far as reasonably practicable, i.e. take every reasonable effort to reduce and prevent negative effects, while enhancing benefits.

Further, the contractor(s) will be required to develop the following plans, and any others considered relevant, and incorporate accordingly into the detailed EMP:

- Marine Archaeology Management Plan;
- Noise and Vibration Management Plan;
- Water Quality Management Plan;
- Site Waste Management Plan;
- Traffic Management Plan (onshore only);
- Dust Minimisation Plan (onshore only – refer to **Appendix A**); and
- Emergency Incident Response Plan.

The above plans are considered 'live' documents that will be reviewed and revised regularly as decommissioning works progress, notwithstanding that the draft EMP sets out the baseline core requirements with regard to environmental management. The process for update, review, and approval of the above plans must be documented in the detailed EMP to ensure that all revisions can be easily understood, applied and updated by the contractor(s) throughout the decommissioning works.

It is expected that amendments to the EMP are likely to be necessary to reflect inter alia contract scheduling, contractor appointments, environmental management policies, practices or regulations, and developments on the site. These reviews and updates are necessary to ensure that environmental performance is subject to continual improvement and that best practice is implemented throughout the decommissioning works.

2 Proposed Decommissioning Works

2.1 Existing Operations

The Kinsale Area gas fields and facilities are located in the Celtic Sea, between approximately 40 and 70km off the County Cork coast as well as onshore gas metering facilities at Inch, Co. Cork (refer to **Figure 1**).

The original gas fields (Kinsale Head) were developed with two fixed steel platforms (Kinsale Alpha and Kinsale Bravo) with gas exported by pipeline from Kinsale Alpha to the onshore Inch Terminal. The development of smaller satellite gas fields and technical modifications to the facilities have prolonged the life of operations in the Kinsale Area.

The facilities were installed between 1977 and 2003 with gas production commencing in 1978 and seasonal gas storage operations taking place between 2001 and 2017. However, it is expected that the extraction of gas from the Kinsale Area gas fields will no longer be economically viable by approximately 2020/2021, whereupon the wells will be plugged and the associated facilities decommissioned.

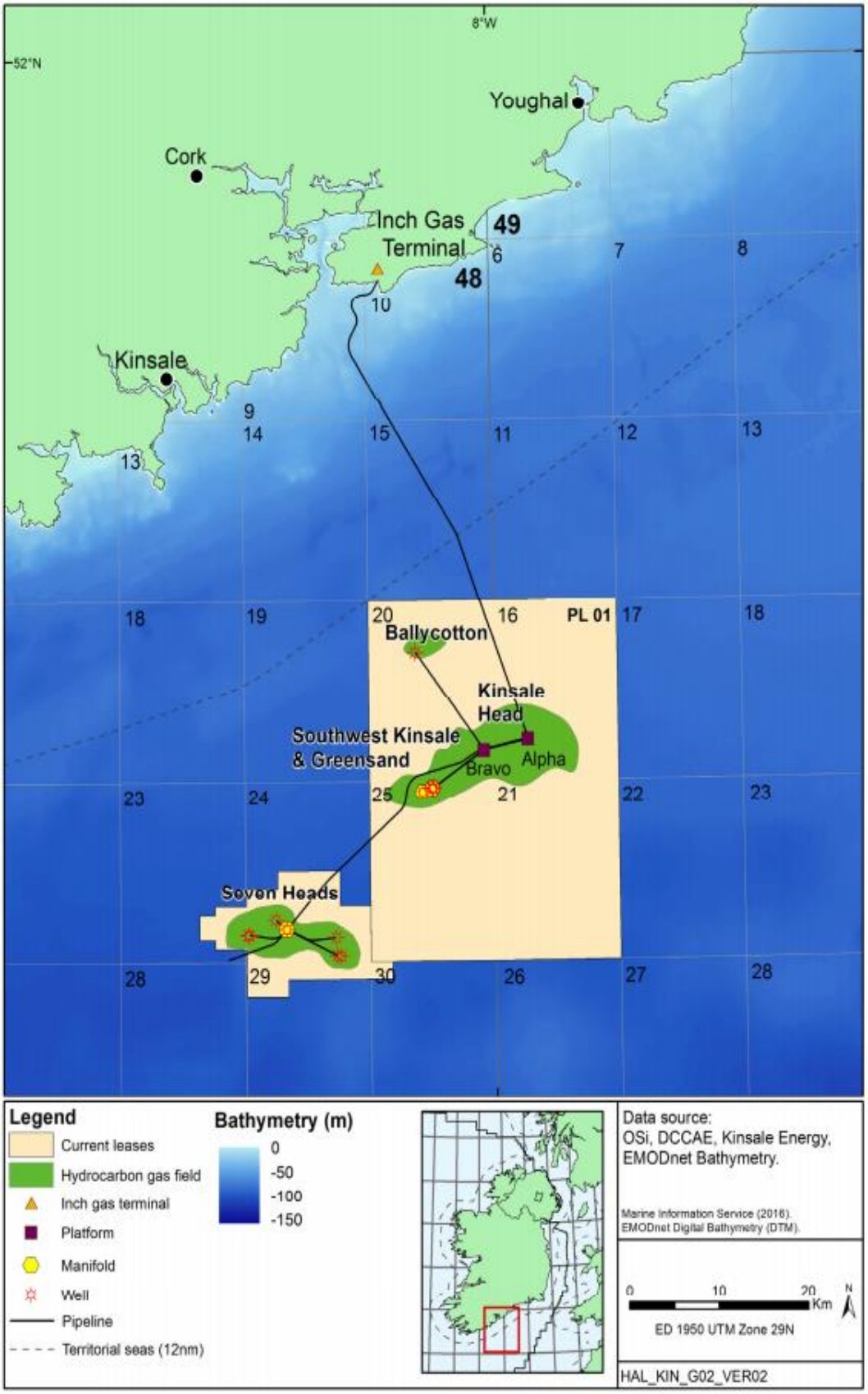


Figure 1: Site Location

2.2 Scope of Proposed Decommissioning Works

The scope of the Kinsale Area Decommissioning Project ('the proposed decommissioning works') includes the decommissioning of all physical assets within Kinsale Energy's two leasehold areas, pipelines and umbilicals (control cables) outside the leasehold areas, as well as the onshore gas metering terminal at Inch, Co. Cork. These are summarised below and illustrated in **Figure 2**.

- Two fixed steel platforms, the Kinsale Alpha (KA) and Kinsale Bravo (KB) platforms;
- All subsea and platform wells;
- All infield subsea infrastructure associated with the wider Kinsale Area fields (Kinsale Head, South West Kinsale, Greensand, Ballycotton and Seven Heads) including manifolds and wellhead protection structures;
- All subsea pipelines, umbilicals and protection materials (graded rock, concrete mattresses etc.);
- The 24 inch diameter export pipeline between KA and the Inch Terminal on the Co. Cork coastline; and
- The onshore Inch Terminal.

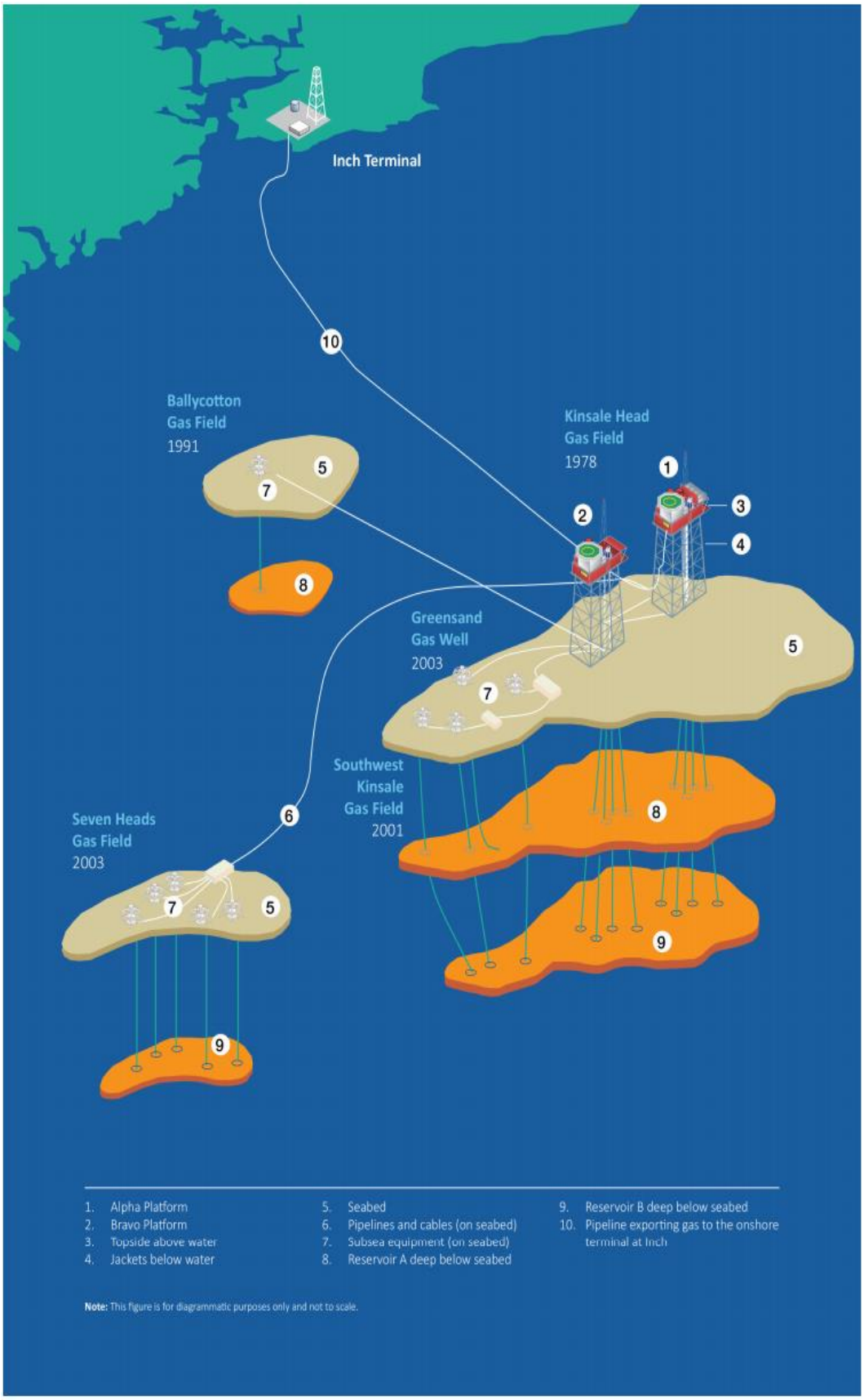


Figure 2: Kinsale Area Decommissioning Project – Physical Assets

3 Decommissioning Activities

3.1 Introduction

This section describes inter alia, decommissioning activities, typical decommissioning methods and an indicative decommissioning schedule.

3.2 Pre-Cessation of Production Activities

During the period leading up to Cessation of Production (CoP) a number of preparatory activities are likely to be undertaken on the Alpha and Bravo platforms to ensure that the facilities are ready to start decommissioning activities immediately following CoP. These preparatory activities may include:

- Removal of redundant equipment;
- Installation of additional/replacement utilities e.g. temporary power generation & distribution;
- Preparation of lay-down areas for well servicing equipment;
- Local structural modifications for decommissioning equipment; and
- Installation of temporary accommodation units (Bravo).

All activities or modifications required pre-CoP will be planned and carried out in accordance with current operational procedures and in compliance with the Production Safety Case.

3.3 Post CoP Activities/Pre-Decommissioning Activities

Following Cessation of Production it is intended to immediately commence the process of making the facilities 'hydrocarbon-free' – this includes a number of activities including:

- Pipeline Contents Displacement, including 24" export line, interplatform line, satellite well pipelines and interfield pipelines; and
- Topsides Disconnection and Gas-freeing.

All of the offshore project activities up to the point where the platforms are 'hydrocarbon free' will be carried out within the existing operations framework and will be covered in a Decommissioning Safety Case to be submitted to the Commission for Regulation of Utilities (CRU).

3.3.1 Pipeline Displacement

Pipeline displacement will take place for the 24" export line, the interplatform line, the satellite well pipelines and the interfield pipelines.

The pipelines connecting each of the subsea well installations to their respective platforms (Alpha or Bravo) will be displaced with seawater by means of pumping spreads located on the platforms – water will be pumped from the platform and into the connected wells, which will all be at low pressure (sub-hydrostatic). Subsequently, the pipelines will be disconnected at the subsea well locations.

For the Kinsale Head lines, the main 24" trunk line, which is likely to be retained for possible future use, will be filled with inhibited sea-water to limit corrosion.

For the Seven Heads lines, the contents of all well flowlines will initially be displaced into their respective wells by pumping through the 18" trunkline and the subsea manifold. After this, the main 18" trunk line, which is likely to be retained for possible future use, will be filled with inhibited sea-water to limit corrosion. The line will subsequently be fitted with a blank flange when it is disconnected from the subsea manifold, which is to be removed.

3.3.2 Topsides Disconnection and Gas-Freeing

In parallel with the pipeline displacement campaign, the platform topsides facilities will be made safe, all pressure vessels and piping will be vented and purged and non-essential electrical supplies will be disconnected.

Volumes of waste (fluids and associated debris) from the topsides are expected to be small as the hydrocarbons produced are dry natural gas (e.g. no sludges or solid Naturally Occurring Radioactive Material (NORM) material are present). These wastes, along with any residual inventories of diesel, chemicals, condensate or aviation fuel, will be collected for onshore disposal under Kinsale Energy's existing waste management procedures following CoP.

3.4 Decommissioning Activities

The broad scope of work involved in decommissioning the facilities, using each chosen decommissioning alternative noted above, is outlined as follows and illustrated in **Figure 3**:

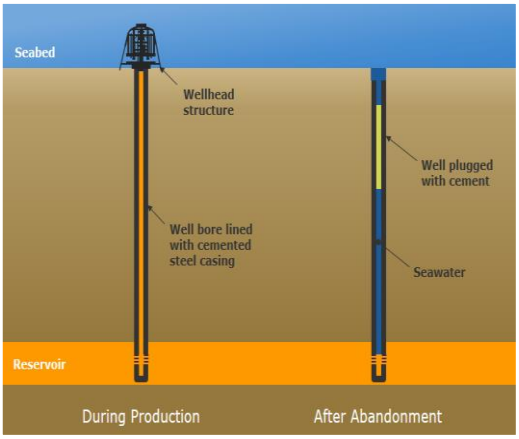
- The plugging of all wells, including removal of above seabed components such as wellhead protection structures;
- The disconnection and degassing of the platform topsides and all pipelines followed by the removal of the platform topsides (including any special wastes which require further onshore treatment), and the recycling/disposal of topside structures;
- The removal of jacket structures to shore for recycling/disposal;
- The removal of all subsea structures including the removal of connecting pipe spool pieces and control cables, and associated protection measures, with all recovered materials returned to shore for recycling/disposal;
- The decommissioning of all pipelines, control cables and their protection materials involving rock placement of freespans and/or remaining exposed sections of pipe and all remaining in situ protection materials;

- The filling of the export pipeline onshore section with grout (if a viable re-use option is not identified before decommissioning);
- The recovery of large items of debris and completion of a post-decommissioning survey to confirm success of the decommissioning operations; and
- The decommissioning of the Inch Terminal and the return of the site to the original contours and agricultural use, in accordance with the planning consent.

The final decommissioning methodology for each facility will be determined in conjunction with the selected removal contractor.

All wastes returned to shore will be handled, recycled and disposed of in accordance with relevant waste legislation and the waste hierarchy such that the reuse and recycling of materials will be considered before disposal (e.g. to landfill). The final destinations and disposal routes for material removed from the fields, whether for recycling or disposal, is yet to be decided.

The final destinations have been assumed to be sites within Europe up to 700 nautical miles from the Kinsale Area.

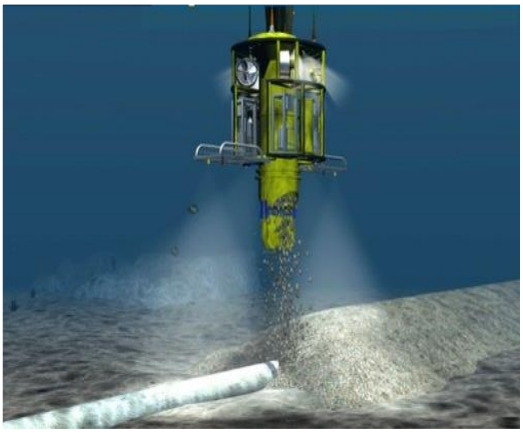


Typical Well Plugging

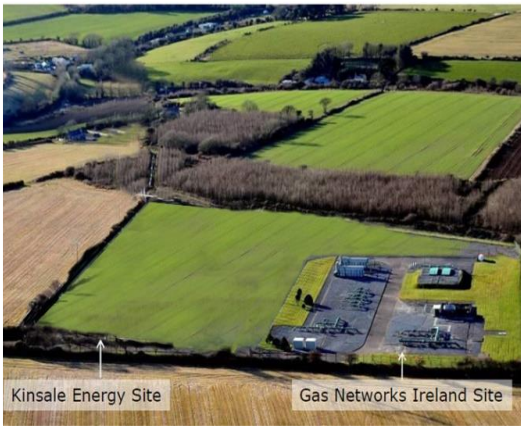
Removal of platform topsides using multiple lifts (option using conventional heavy lift vessel (HLV) – courtesy of Saipem)

Removal of platform topsides in single lift (option using specialist HLV – courtesy of Allseas)

Removal of platform jacket onto barge for transport to shore



Rock placement along exposed pipeline



Return of the onshore terminal site to the original contours and agricultural use

Figure 3: Decommissioning Scope and Alternative Methodologies

3.5 Decommissioning Schedule

An indicative project programme for the entire Kinsale Area Decommissioning Plan is shown in **Figure 4**. The final decommissioning project schedule will be completed once all decommissioning contracts have been awarded; the timing of platform removal and subsea well abandonments are likely to vary depending on availability of specialised marine construction and drilling vessels (crane barges, MODU's etc.).

The timing of cessation of production is anticipated between 2020 and 2021. It is estimated that the decommissioning works will take between 12 and 18 months, with the following project phasing:

- After production has ceased, the subsea pipelines, which connect the subsea wells to the platforms and the platforms to the Inch terminal onshore, will be filled with seawater, and inhibited seawater in the case of the 24" export pipeline and 18" Seven Heads pipeline, with any contents being displaced into the wells (that is into the reservoirs below the seabed which had contained natural gas);
- Following this, the platform wells will be made safe (by setting a cement plug or plugs to seal the well bore and then recovering the top section of the well steel tubing) and the Kinsale Alpha and Bravo platforms topsides facilities and pipework will be degassed to achieve hydrocarbon free status;
- Upon completion of platform well decommissioning and the degassing of the platform topsides and pipework, both Alpha and Bravo platforms topsides can then be removed. A programme of works to remove the subsea structures and their protection materials, and disconnect the spool pieces and control cable connections, will be completed in advance of the subsea well plug and abandonment activities;
- The pipeline, control cables and protective material rock placement works will be undertaken following the removal of the subsea structures;
- The onshore terminal decommissioning will be carried out at a suitable time within the overall project schedule. The onshore pipeline section will be grout filled at this stage, if no further use of the pipeline is anticipated; and
- The platform jackets will be removed at a later date, which may take place up to 10 years after topsides removal. During this period the structures would be fitted with navigational aids (the precise details of which will be agreed with the Commissioners of Irish Lights and clearly marked on navigation charts).

There are other uncertainties which are likely to affect the decommissioning schedule, including:

- Marine vessel availability: the specialised vessels required, e.g Construction Support Vessels (CSVs)/Diving Support Vessels (DSVs), may not be

available in the time windows planned, due to market conditions or over-runs on other projects; the contracting strategy will be flexible to allow for re-scheduling if required; and

- Weather: many of the key operations are weather sensitive, e.g. topsides lift, and the program may be delayed due to extreme weather conditions. The time estimates and durations used for planning purposes are based on historical performance data, and include some allowance for weather downtime, based on previous experience.

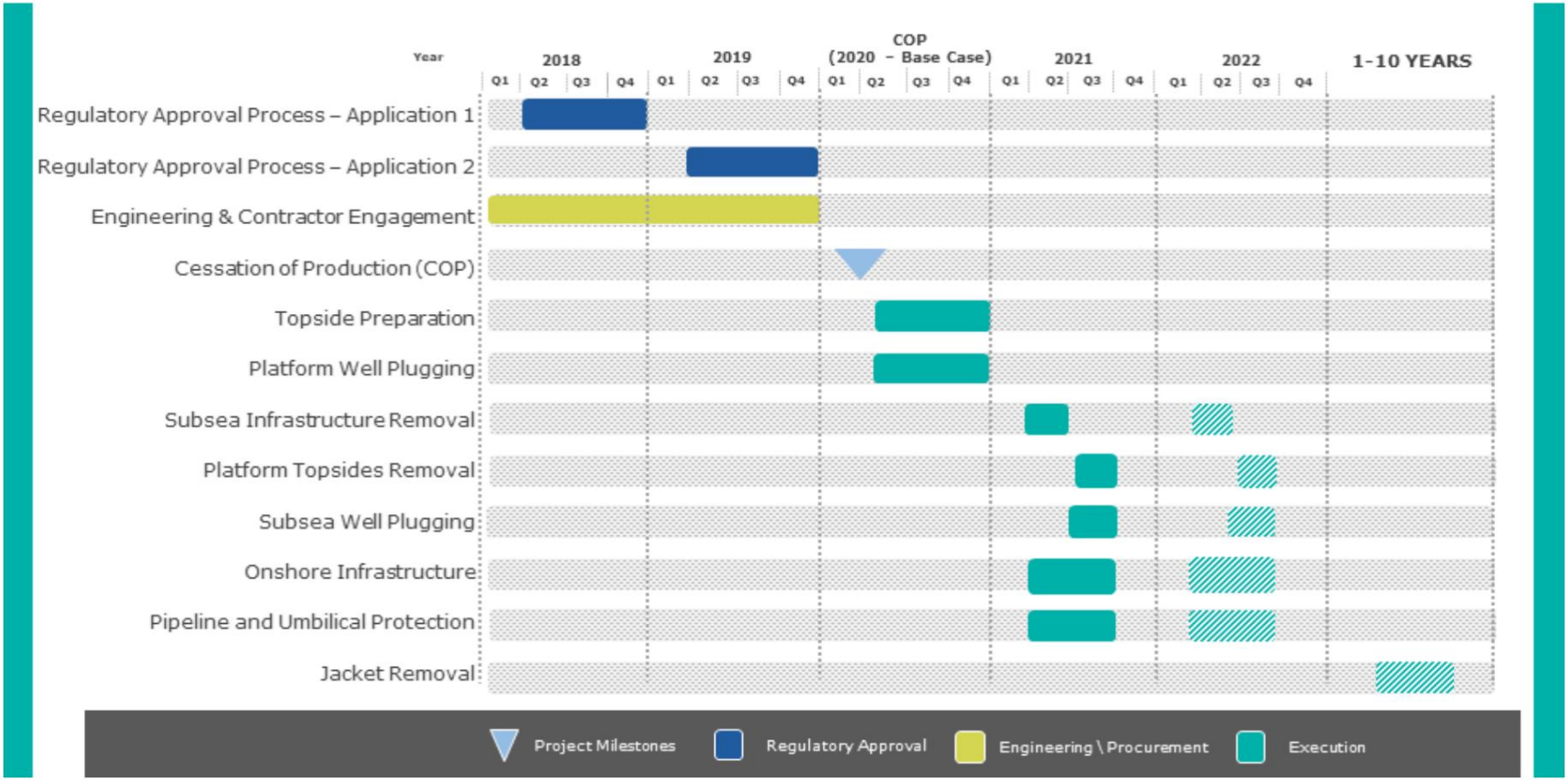


Figure 4: Indicative Decommissioning Schedule

Note: The actual timing of Cessation of Production will depend on field economics (gas prices) and facilities performance, currently anticipated between 2020 and 2021. The timing of activities may also vary depending on company strategy and availability of specialised marine vessels.

3.6 Decommissioning Employment

Employment numbers for the decommissioning activities will vary depending on the stage of the project and the actual approach adopted by the contractor, but will be relatively small throughout.

3.7 Materials Management

Table 1 summarises the approximate quantity of materials that will be generated from the proposed decommissioning works.

Details on the management of the materials generated from the decommissioning activities is presented in Section 3.7.1 to Section 3.7.5. Further information on waste management associated with the proposed decommissioning works is presented in **Section 7.7**.

Table 1: Materials Generated – Kinsale Area Decommissioning Activities

Waste Type	Total Weight	Source
Steel	19,269Te	Platforms (contributing 88% of the total) Subsea Structures (including connecting spool pieces, control cables and protection materials) Inch Terminal
Concrete	14,193Te	Subsea Structures (including connecting spool pieces, control cables and protection materials) Inch Terminal (contributing 38% of the total)
Non-ferrous Metals in Anodes	216Te	Platforms Subsea Structures
Asbestos Containing Materials	316Te	Platforms
Other Hazardous Waste	Small quantities	Platforms Inch Terminal
Other Non-hazardous Wastes: copper and plastics from cabling	398Te	Platforms Subsea Structures (including connecting spool pieces, control cables and protection materials)
Other Non-hazardous Wastes: marine growth	2,900Te	Platforms
Total	37,283Te	

3.7.1 Topsides Waste Management (Kinsale Head)

Following CoP, the topsides of the KA and KB platforms will be cleaned prior to removal. Volumes of waste (fluids and associated debris) from the topsides are expected to be small as the hydrocarbons produced are dry natural gas (e.g. no sludges or solid naturally occurring radioactive material (NORM) are present). These wastes, along with any residual inventories of diesel, chemicals, condensate or aviation fuel, will be collected for onshore disposal under Kinsale Energy's existing waste management procedures.

The topsides structure that is removed will be recycled. Only a small proportion is unsuitable for recycling and will be sent to landfill. Asbestos containing material identified on the existing platforms (mainly building cladding material) and other hazardous waste will be handled and disposed of at appropriately licensed facilities in accordance with all relevant legislation. Contractors will be required to strictly adhere to all relevant legislation and guidelines in this regard.

3.7.2 Pipeline Spools & Umbilical Jumpers

Pipeline spools, umbilicals and protective concrete mattress and grout bag materials will be removed for recycling or disposal where necessary to allow access to the subsea structures.

Rock cover remediation will be used to mitigate the potential snagging risk associated with decommissioning pipelines and umbilicals *in situ*, and the rock will be designed to be overtrawlable.

Up to 229,175 tonnes of rock cover will be used for all lines for the above remediation works. The rock will be sourced onshore, most likely from a UK or Norwegian quarry, because currently there are no Irish quarries with high capacity facilities for loading ships. The environmental impacts associated with the quarry will have already been assessed in accordance with the legislation relevant in the country of origin.

Due to the high recyclability of steel, which is the dominant pipeline material, any pipeline spools which are removed will be recycled. It is anticipated that concrete could also have a high recyclability rate, with the protection materials to be recycled where possible and minimal disposal.

3.7.3 Subsea Structures

The subsea structures, including any concrete mattresses or grout bags surrounding each structure, will be removed and recycled or disposed. Due to the high recyclability of steel, which is the dominant subsea structure material (excluding protection blocks), the subsea structures will be recycled. It is anticipated that concrete should also have a high recyclability rate.

3.7.4 Wells

Wellhead and casing material and Subsea Xmas Trees will be removed and recycled or disposed.

3.7.5 Inch Terminal

On completion of the demolition works at the onshore Inch Terminal site, it is likely that subsoil and topsoil will need to be imported to the site (estimated at approximately 12,000 tonnes).

All subsoil and topsoil required will be sourced locally where possible. Materials required from quarries will only be sourced from quarries which are listed on the register maintained by the local authority. The environmental impacts associated with the registered quarry have already been assessed by the local authority under Section 261 of the Planning and Development Act 2000, as amended.

3.8 Health and Safety

3.8.1 Overview

Safety on site will be of paramount importance. During the selection of the relevant contractor(s) and the respective subcontractors their safety records will be investigated. Only contractors with the highest safety standards will be selected.

Prior to working on site, each individual will receive a full safety briefing and will be provided with all of the safety equipment relevant to the tasks the individual will be required to perform during employment on site.

Safety briefings will be held regularly and prior to any onerous or special task. 'Toolbox talks' will be held to ensure all workers are fully aware of the tasks to be undertaken and the parameters required to ensure that the task will be successfully and safely completed.

All visitors will be required to wear appropriate personal protective equipment prior to going on to the site and will undergo a safety briefing by a member of the site safety team.

Site safety audits will be carried out during the decommissioning programme to ensure that the rules and regulations established for the site are complied with at all times.

At any time that a potentially unsafe practice is observed, the site safety manager will have the right as well as the responsibility to halt the work in question, until a safe system of working is again put in place.

3.8.2 Health, Safety and Environment Risk Management System

In addition to the legislative basis and adhering to the OSPAR Convention requirement to protect the maritime area against the adverse effects of human

activities, Kinsale Energy operates a Health, Safety and Environment Management System (HSEMS) based on the requirements of internationally accepted standards for Environmental Management (ISO14001) and for Occupational Health and Safety (OHSAS18001).

Kinsale Energy's Health, Environment and Safety (HES) policy commits the company to take all reasonable and practical steps to prevent and eliminate risks of injuries, occupational illness, damage to property and the conservation of the environment. This policy is applicable to Kinsale Energy's activities and those of its contractors. All contractors must adhere to the principles of the Kinsale Energy HES policy.

The Kinsale Energy HSEMS is structured around 8 elements which are summarised below:

- Leadership and Commitment: addresses top-down commitment and company culture necessary for success in the systematic management of HES;
- Policy & Strategic Objectives: a written HES Policy is required as a minimum. In setting strategic objectives and developing a HES Plan, management is required to consider the overall risk levels of its business activities taking into consideration the legal requirements, technological change, emerging issues and key stakeholders expectations;
- Organisation, Responsibilities, Resources, Standards & Documents: addresses the organisation of people within Kinsale Energy, and the resources and documentation for sound and sustainable HES performance. Requires that the organisation and resources are adequate for its purpose, and that responsibilities for safety critical positions at all levels are clearly described, communicated and understood. It requires that staff based offshore are developed following structured competency assessment and training systems;
- Hazards and Effects Management Process (HEMP): describes the identification of hazards and evaluation of HES risks for all activities, products and services, and the development of control and recovery measures to reduce HES risks to as low as reasonably practicable (ALARP);
- Planning and Procedures: addresses asset integrity, procedures and work instructions, work permit system, management of change, contingency and emergency planning expectations, legislation compliance, process safety management, purchasing and procurement;
- Implementation and Monitoring: addresses how activities are performed and monitored, and how corrective action is taken when necessary;
- Audits: puts in place a programme to review and verify the effectiveness of the management system. It includes audits by independent auditors of processes or facilities; and
- Management Review: a formal process for management to review the effectiveness and suitability of the Management System in managing HES risks and ensuring continual improvements in HES performance. A management review occurs every 2 months at the HES Management Committee meeting.

Kinsale Energy also has Emergency Response procedures in place that cover accidental releases offshore and onshore. The plan provides Kinsale Energy response personnel with the processes and information resources needed to implement an appropriate response to a pollution event from the Kinsale Area facilities. Emergency Response exercises are periodically carried out to assess the effectiveness of plans and to ensure team familiarity with expected actions.

3.8.3 Safety Case

In accordance with the requirements of the Petroleum Safety Framework, as established under the Petroleum (Exploration and Extraction) Safety Act 2010, and as amended by the Petroleum (Exploration and Extraction) Safety Act 2015, Kinsale Energy will develop a number of Safety Cases, as follows:

- Decommissioning Safety Case – covers platform based activities up to 'hydrocarbon-free' status;
- Well Work Safety Cases – covers all well abandonments; and
- Non-Production Installation Safety Case – covers well intervention vessels/drilling rigs (prepared by NPI Owner).

These Safety Cases will be submitted to the Commission for Regulation of Utilities (CRU) for approval. The CRU will issue a safety permit in respect of the designated petroleum activity, on acceptance of each of the Safety Cases. Safety Cases submitted to the CRU will be prepared in accordance with the Safety Case Guidelines, including CER/16/023 'Requirements of the Petroleum Safety Framework', CRU18183'Safety Case Requirements', CER/16/106 'ALARP Guidance' and CER/16/016 'Compliance Assurance System'.

Each Safety Case shall demonstrate that Kinsale Energy has carefully considered all available data in the planning of the proposed activities and that the risks associated with the design and execution of the activity have been reduced to ALARP.

4 Environmental Management Framework

4.1 Overview

It will be a requirement that the contract(s) awarded for the proposed decommissioning works will comply with relevant documentation including the EIAR, Decommissioning Plan(s), any statutory consent conditions received, this draft EMP and any subsequent detailed EMP.

As part of the environmental management framework contractors will need to comply with all relevant environmental legislation and take account of published standards, accepted industry practice, national guidelines and codes of practice appropriate to the proposed decommissioning works.

The contractor(s) will be required to develop and implement an Environmental Management System (EMS) that follows the principles of ISO14001. Further, the contractor's EMS should include an environmental policy, operational, monitoring and auditing procedures to ensure compliance with all environmental requirements and to monitor compliance with environmental legislation and the environmental management provisions outlined in the relevant documentation.

4.2 Responsibilities

4.2.1 Employer

Kinsale Energy will be the employer responsible for ensuring that competent parties are appointed to undertake the decommissioning works and that sufficient resources are made available to facilitate the appropriate management of risks to the environment.

4.2.2 The Contractor

The contractor(s) appointed will be responsible for the organisation, direction and execution of environmental related activities during the decommissioning of the proposed decommissioning works. The contractor(s) will be required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.

4.2.3 Site Manager

A Site Manager will be appointed by the contractor(s) to oversee the day-to-day management of working areas within the site and ensure that effective, safe, planned decommissioning activities are delivered on an ongoing basis to the highest standards. The Site Manager will be a suitably qualified, competent and experienced professional that will oversee site logistics, communicate regularly with staff, accommodate project-specific inductions for staff on site and ensure

that all work is compliant with the relevant design standards and health and safety legislation.

4.2.4 Environmental Manager

An Environmental Manager will be appointed by the contractor(s) to ensure that the EMP is effectively implemented. The Environmental Manager will be a suitably qualified, competent and experienced professional that would perform the necessary tasks, review environmental procedures and consult with the members of the decommissioning team and stakeholders as requited. The Environmental Manager would be responsible for:

- Preparing, maintaining and implementing the EMP;
- Establishing, implementing, and maintaining the EMS in line with ISO 14001;
- Conducting regular environmental inspections and audits as specified in the contract and checking adherence to the EMP and compiling an environmental compliance report on a monthly basis;
- Ensuring that decommissioning occurs in accordance with the relevant environmental requirements and that such compliance is adequately recorded and documented;
- Attending site and stakeholder meetings as required;
- Keeping up-to-date with relevant environmental best practice and legislative changes;
- Liaising with the relevant staff to prepare Method Statements and relevant plans for all activities where there is a risk of environmental damage;
- Having a detailed level of knowledge on all aspects of environmental information associated with the proposed decommissioning works;
- Ensuring all personnel have undertaken adequate environmental inductions, awareness briefings and training (including subcontractors);
- Dealing with environmental complaints; and
- Managing and responding to environmental incidents and ensuring that all incidents are recorded and reported in an appropriate manner.

4.2.5 Environmental Specialists engaged by the Contractor

To fulfil its obligations under the EMP and to support its Environmental Manager, the contractor(s) will be responsible for engaging suitably qualified and experienced professionals where necessary.

4.3 Communication Procedures

4.3.1 Community and Stakeholder Engagement

The contractor(s) will take all reasonable steps to engage with stakeholders in the local community (onshore and offshore), focusing on those who are likely to be affected by the decommissioning works including residents, businesses, community resources, fishing industry groups, other sea users and specific vulnerable groups.

Communication with the local community, CCC and other relevant stakeholders shall be undertaken at an appropriate level and frequency throughout the decommissioning works. Kinsale Energy will establish a Communications Management Plan that will specify obligations in relation to community and stakeholder engagement that the contractor must adhere to. Where communications are related to environmental issues the Environmental Manager will be informed and engaged with, as appropriate.

4.3.2 Regular Consultation and Public Communications

The Communications Management Plan will also specify obligations in relation to regular consultation and public communications activities required during the decommissioning works. The contractor(s) will facilitate regular consultation in accordance with the specifications and cooperate with this plan. Where communications are related to environmental issues the Environmental Manager would be informed and engaged with, as appropriate.

Details of the available communication channels/points of contact for members of the public to contact the project team during the decommissioning works will be established in advance of the commencement of the works and displayed around working areas.

4.3.3 Advance Notice of Works

The contractor(s) will ensure that local residents, businesses, occupiers, general users of the area and stakeholders are informed in advance of decommissioning activities that are likely to affect them. Relevant obligations and procedures in relation to advance notice of works will be identified in the detailed EMP and in the Communications Management Plan. Marine operations will be planned appropriately, with marine notices utilised to inform sea users and consultation with relevant stakeholders in advance.

All notifications will detail the nature, estimated duration and working hours. All notifications will include a project-specific contact number to which any enquiries can be directed. The contractor(s) will be responsible for preparing and issuing the notifications subject to the relevant approval and consents.

Kinsale Energy and the contractor(s) in consultation with DCCAE, CCC and other statutory stakeholders will decide whether to arrange any further targeted

consultation with the public or relevant stakeholders in advance of specific decommissioning activities on a local basis.

4.3.4 Contacts

An emergency contact list will be established and made available to all staff employed. The contact list shall be displayed prominently on site as well as at suitable locations where decommissioning activity is being carried out around working areas. The contact list will include key environmental representatives that are likely to need to be contacted in the event of an incident.

4.3.5 Enquiries and Complaints

The contractor(s) will establish a process for handling all enquires including complaints. All enquires will be recorded and a log would be maintained to include details of the response and action taken. This will be available upon request for inspection to DCCAE and CCC, as appropriate. All enquiries, whether a query or a complaint, will be dealt with in a timely manner.

The Environmental Manager will be immediately informed of any environmental-related issues that have been raised. Where appropriate, the Environmental Manager would be responsible for informing DCCAE, CCC, relevant stakeholders and statutory bodies.

5 Environmental Management Procedures

5.1 Training, Awareness and Competence

The contractor(s) and their subcontractors would be selected with due consideration of relevant qualifications and experience. The contractor(s) will be required to employ staff with appropriate skills, qualifications and experience appropriate to the needs of the works to be carried out during the decommissioning works.

A site induction will be provided to all staff before they commence work on site. Where appropriate, the contractor(s) will identify specific training needs for the workforce and will ensure that appropriate training requirements are fulfilled. Due to the specialist nature of the offshore works required, the contractor(s) will be required to ensure that all personnel involved in these works have appropriate experience and training.

The contractor(s) must establish an Environmental Training and Awareness Programme and ensure that all personnel receive adequate training prior to the commencement of the decommissioning activities. A baseline level of environmental awareness will be established through the site induction programme. Key environmental considerations and objectives will be incorporated into this induction. Specifically, site inductions will cover the following as a minimum:

- Introduction to the Environmental Manager;
- Description of the EMP and consequences of non-compliance;
- The requirements of due diligence and duty of care;
- Overview of conditions of consents, permits and licences;
- Requirements associated with community engagement and stakeholder consultation;
- Identification of environmental constraints and notable features within the site; and
- Procedures associated with incident notification and reporting including procedures for dealing with damage to the environment.

Nobody will work on site without first receiving environmental induction. Signed records of environmental training will be established, maintained and made available to the Employers Representative.

Site talks would be carried out on a regular basis to ensure that staff have an adequate level of knowledge on environmental topics and community relations (for the onshore elements at the Inch Terminal), and can effectively follow environmental control procedures throughout the decommissioning works.

5.2 Meetings

Kinsale Energy and/or the Employer's Representative will arrange regular meetings (every three months) to discuss environmental matters and ensure effective coordination to be attended by:

- Kinsale Energy;
- The Employer's Representative;
- Contractor(s); and
- Environmental Manager.

The Environmental Manager will be responsible for arranging and holding monthly meetings and site walk overs with the Employer's Representative. The Environmental Manager would develop and distribute minutes of the monthly meetings and distribute them accordingly.

5.3 Monitoring, Inspections and Audits

For the duration of the contract(s), the environmental performance of the contractor(s) will be monitored through site inspections and audits. The programme for monitoring, inspections and audits shall be specified in the contract(s) and is likely to be a combination of internal inspections and independent external audits that may be either random or routine.

Records of all inspections carried out should be recorded on standard forms and all actions should be closed out in a reasonable time. The detailed EMP will include further details of inspection procedures.

5.3.1 Monitoring

Mitigation and monitoring will be carried out in accordance with the requirements of the EIAR so that decommissioning activities are undertaken in a manner that does not give rise to significant negative environmental effects. Suitable monitoring programmes will be developed, implemented, documented, and assessed (with potential follow up) in accordance with the specification outlined in the detailed EMP.

The results of all environmental monitoring activities will be reviewed by the Environmental Manager on an ongoing basis to enable trends or exceedance of criteria to be identified and corrective actions to be implemented as necessary. The contractor(s) will be required to inform the Employer's Representative of any continuous exceedances of criteria.

5.3.2 Inspections

Routine inspections of decommissioning activities will be carried out by the Environmental Manager on a daily basis to ensure all necessary environmental measures relevant to the decommissioning activities are being effectively implemented by staff, ensuring legal and contractual conformity.

More detailed inspections would be undertaken by the Environmental Manager on a weekly basis.

The weekly inspections would be appropriately documented by the Environmental Manager and copies of these records and any action required to be undertaken should be made available to the Employers Representative.

Each month one of the weekly inspections will include a review of environmental documentation and records. The monthly inspection will be recorded on a standard form and reported to the Employers Representative within five days of the inspection taking place. This standard form will address the following as a minimum:

- Summary of compliance/non-compliance with the EMP;
- Results and interpretation of the monitoring programme;
- Key issues noted in inspections and/or audits;
- Summary record of non-conformities, incidents and corrective actions;
- Summary of environmental complaints and queries received in relation to environmental matters; and
- Summary record of environmental training undertaken by staff.

5.3.3 Audits

Kinsale Energy will arrange for independent environmental audits to be carried out by a third party during the decommissioning works. External audits provide the opportunity for an independent auditor to advise on compliance with applicable environmental regulatory requirements, the efficacy of the environmental management approaches used, and recommendations for reducing identified environmental risks (if considered appropriate).

Further, regulatory and statutory bodies may undertake site visits to monitor compliance with legislative and regulatory requirements. These site visits may occur randomly throughout the decommissioning works. The contractor(s) will facilitate these visits and the Environmental Manager will be available to provide information as required and deal with any issues that are likely to arise during, or as a result of, these visits.

Planned and documented audits aimed at evaluating the conformance of the EMS would also be carried out by the Environmental Manager. As part of the detailed EMP, the Environmental Manager will establish a schedule for internal audits and this inspection calendar will be made available to the Employer's Representative. These environmental system audits will be scheduled at least once for every major contract.

The contractor(s) will be required to prepare standard forms for reporting and audit items shall include but not be limited to the following activities:

- Review of environmental documentation to establish if relevant requirements are being achieved and if continual improvement is occurring;

- Site inspection and interviews with onsite personnel; and
- Reporting with recommendations.

For any environmental non-conformities found, the auditor will prepare a Corrective Actions Report to describe and record the findings of the non-conformance. The verification of previous Corrective Actions Reports should be also recorded.

Upon completion of an audit, the auditor will review all Corrective Actions Reports and prepares an Audit Report to summarise:

- Corrective action requests raised;
- Previous corrective action requests closed; and
- Observations made during the audit.

The Environmental Manager will be entitled to participate in all audits. Notwithstanding this, the Employers Representative shall produce and provide the contractor with a copy of each audit report within five working days of the audit. Each audit report will detail the findings from the auditor, specify non-conformances identified and outline the proposed corrective action.

5.4 Incident Response

5.4.1 Corrective Actions

5.4.1.1 Overview

Corrective actions are measures to be implemented to rectify any non-conformances (i.e. exceedance of criteria or targets) identified during monitoring, inspections and/or audits.

In the first instance, an investigation should be undertaken by the Environmental Manager to identify the cause of any non-conformances. Appropriate remedial measures shall be identified and implemented as soon as practicable to prevent further exceedances. If necessary, the appropriate statutory authority and stakeholders will be notified.

Where new or amended measures are proposed, the EMP will be updated accordingly by the Environmental Manager and the Employer's Representative should be informed at the earliest opportunity.

5.4.1.2 Corrective Action Reports

A Corrective Actions Report is prepared on foot of any non-conformances identified during environmental monitoring, inspections and/or audits on site. The Corrective Actions Report will describe in detail the cause and effect of a non-conformance on site and describe the recommended corrective action that is required to remedy it.

An appropriate timeline for closing out the corrective actions will be identified by the contractor(s) in their detailed EMP as well as arrangements for the Environmental Manager verifying the Corrective Actions Report.

5.4.2 Environmental Emergency Incidents

5.4.2.1 Overview

Emergency incidents are those occurrences that give rise to significant negative environmental effects including but not limited to the following:

- Any emission that does not comply with the requirements of the contract and relevant licences;
- Any circumstance with the potential for environmental pollution; or
- Any emergency that is likely to give rise to significant environmental effects (e.g. significant spillages or fire outbreak).

5.4.2.2 Spill Control Measures

Every effort will be made to prevent pollution incidents associated with spills during the decommissioning works. The risk of oil/fuel spillages will exist at both the offshore sites and at the onshore Inch Terminal site and any such incidents will require an emergency response procedure.

The following steps provide the procedure to be followed in the event of an oil/fuel spill occurring at an offshore site:

- Identify and stop the source of the spill and alert people working in the vicinity;
- Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action;
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident;
- All vessels and the rig to be used during decommissioning will be subject to audit and expected to adhere to Kinsale Energy HES policy. They will have in place the relevant, current Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with MARPOL and/or an oil spill contingency plan, which will be implemented in the event of an accidental event.
- Spills on platform and vessel decks will be contained and controlled using absorbing materials;
- The Environmental Manager shall inspect the site as soon as practicable and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring; and
- The appropriate stakeholders will be notified, including DCCAE (PAD), Irish Coast Guard (IRCG), CRU, CCC and/or the EPA.

The following steps provide the procedure to be followed in the event of an oil/fuel spill occurring at the onshore Inch Terminal Site:

- Contain the spill using the spill control materials or other material as required. Do not spread or flush away the spill;
- Identify and stop the source of the spill and alert people working in the vicinity;
- Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action;
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident;
- If possible, cover or bund off any vulnerable areas where appropriate;
- If possible, clean up as much as possible using the spill control materials;
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited;
- The Environmental Manager shall inspect the site as soon as practicable and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring; and
- The appropriate stakeholders will be notified, such as DCCAE (PAD), CCC and/or the EPA.

Environmental incidents are not limited to just fuel spillages. Therefore, any environmental incident must be reported, recorded and investigated appropriately.

5.4.2.3 Emergency Incident Response Plan

A set of standardised emergency response procedures will govern the management of emergency incidents at both the offshore sites and at the onshore Inch Terminal site. The contractor(s) will be required to detail emergency incident response procedures in the detailed EMP and to develop an Emergency Incident Response Plan.

The Emergency Incident Response Plan will contain emergency phone numbers and the method of notifying local authorities, statutory authorities and stakeholders. Contact numbers for key personnel will also be included therein. Contractors will be required to adhere to and implement these procedures and ensure that all staff and personnel on site are familiar with the emergency arrangements.

In the case of work required in an emergency, or which if not completed would be unsafe or harmful to workers, the public or local environment, DCCAE , CCC (onshore incident) and any other relevant stakeholders will be informed as soon as reasonably practicable of the reasons and likely duration. Examples are likely to include delayed deliveries or equipment failure.

In the event of an emergency incident occurring, the contractor(s) will be required to investigate and provide a report including the following, as a minimum:

- A description of the incident, including location, the type and quantity of contaminant and the likely receptor(s);
- Contributory causes;
- Negative effects;
- Measures implemented to mitigate adverse effects; and
- Any recommendations to reduce the risk of similar incidents occurring.

The contractor(s) will consult with the relevant statutory authorities, stakeholders and relevant parties when preparing and developing response measures. Further, if any sensitive receptor is impacted, the appropriate environmental specialists will be informed and consulted with accordingly.

Any response measures will be incorporated into an updated Emergency Incident Response Plan that should be disseminated accordingly to staff, Kinsale Energy and the Employer's Representative.

5.4.2.4 Emergency Access

For the onshore decommissioning works, the contractor(s) will be required to maintain emergency access routes throughout and identify site access points for the onshore Inch Terminal site.

This should be documented as part of the detailed EMP and Emergency Incident Response Plan.

5.4.3 Extreme Weather Events

The contractor(s) will consider the impacts of extreme weather events and related conditions during the decommissioning works. The contractor(s) will use a short to medium range weather forecasting service from Met Eireann or other approved meteorological data and weather forecast provider to inform short to medium term programme management, environmental control and mitigation measures.

The detailed EMP should consider all measures deemed necessary and appropriate to manage extreme weather events and should specifically cover training of personnel and prevention and monitoring arrangements for staff. As appropriate, method statements should also consider extreme weather events where risks have been identified.

5.4.4 Unexpected Discoveries

The contractor(s) will be obliged to put in place appropriate procedures to be employed in the event of encountering unexpected discoveries, such as unexpected contamination or archaeological discoveries (in the case of the onshore Inch Terminal site) during the decommissioning works.

The contractor(s) will be required to develop appropriate procedures as part of their detailed EMP and the Environmental Manager will ensure that appropriate specialists are facilitated to ensure management in accordance with industry best practice and effective compliance with the relevant legislation. All unexpected discoveries will be reported to the appropriate authorities and will be documented in an appropriate manner.

5.5 Reporting

5.5.1 Environmental Compliance Report

The contractor(s) will be required to submit a monthly report to the Employer's Representative for review and approval. The report shall address the following as a minimum:

- Summary of compliance with the EMP including identification of any non-conformances;
- Interpretation of the results of ongoing monitoring;
- Detailed description of any issues and/or non-conformances identified during inspections and/or audits;
- Record of incidents and corrective actions (including Corrective Actions Reports as appropriate);
- Synopsis of environmental complaints received/queries raised by stakeholders; and
- Records of environmental training undertaken (as appropriate).

5.5.2 Incident Investigation Reports

The contractor(s) will inform the Employer's Representative of all emergency incidents immediately and prepare an initial report within 24 hours setting out the details of the incident and cause(s) if known. The contractor(s) will be required to complete the Environmental Incident Report and any further documentation requested by the Employer's Representative in relation to the incident within 7 days of the incident occurring. The contractor(s) will respond to all comments made by the ER on any incident.

The Environmental Incident Report will contain details of the incident including the location, known and suspected causes and weather conditions. It will define the scale and effects (short, medium, long term, temporary/permanent) as well as required corrective actions and mitigation/ remediation/compensation measures (as appropriate).

5.6 Environmental Records

The contractor(s) shall maintain records of all environmental documentation including monitoring, test results, method statements and plans. All records will be kept up to date and be made available for audits, inspections and periodical

reporting. The contractor(s) will maintain the following environmental records (as a minimum) that will be made available for inspection to the Employer's Representative and the relevant authorities, if required:

- Management Plans;
- Records of environmental incidents;
- Monthly environmental reports;
- Records of environmental training;
- Register of environmental complaints;
- Corrective Action Reports;
- Environmental inspection and audit reports;
- All monitoring data;
- Waste and chemical inventories; and
- Health and Safety records.

6 General Requirements

6.1 Overview

The contractor(s) and any subcontractors will be required to comply with all of the performance requirements set out in the tender documentation including the statutory consent approvals which are likely to be granted by the DCCAE, CCC, Department of Housing, Planning and Local Government (DHPLG), CRU and other relevant statutory consent authorities.

It is the responsibility of the contractor(s) to ensure compliance and to avoid and/or reduce significant adverse effects that have been identified where practicable.

Sections 6.2 and **6.3** outline general requirements that the contractor(s) and any subcontractors will be required to comply with at the offshore sites and at the onshore Inch Terminal site, respectively.

6.2 Offshore Sites

6.2.1 Good Housekeeping

The contractor(s) will employ a 'good housekeeping' policy at all times at the offshore sites. This will include, but not necessarily be limited to, the following requirements:

- General maintenance of working areas and cleanliness of welfare facilities and storage areas;
- The provision of key requirements such as first aid posts, material storage, spill kits, material and waste storage, welfare facilities etc.;
- Maintain all plant, material and equipment required to complete the decommissioning works in good order, clean, and tidy;
- Provision of adequate welfare facilities for site personnel;
- Effective prevention of oil, grease or other objectionable matter being discharged from any working area;
- Provision of appropriate waste management at each working area; and
- Maintenance of contaminant measures as required in each working area.

6.2.2 Security

The offshore working areas are secured by the existing exclusion zones in operation. These include a 500m subsea exclusion zone around wells and the exclusion zone (ref S.I. No. 285/1977) for other sea users, bounded by a line which is 500m at all points from a straight line joining the KA and KB platforms.

This results in an elongated 500m exclusion zone around the KA and KB platforms and the entire stretch between them.

6.2.3 Site Boundary

The site boundary at the offshore working areas will be provided by the aforementioned exclusion zones surrounding these areas. Notices to Mariners will also be issued to cover decommissioning work to communicate the nature and timing of the activities to relevant other users of the sea. Guard vessels or standby vessels will be used during well abandonment to monitor statutory 500m zones and minimise the potential for interaction between decommissioning vessels and other users.

6.3 Inch Terminal

6.3.1 Good Housekeeping

The contractor will employ a 'good housekeeping' policy at all times at the Inch Terminal site. This will include, but not necessarily be limited to, the following requirements:

- General maintenance of working areas and cleanliness of welfare facilities and storage areas;
- Provision of key requirements such as first aid posts, material storage, spill kits, material and waste storage, welfare facilities etc.;
- Maintain all plant, material and equipment required to complete the decommissioning works in good order, clean, and tidy;
- Provision of adequate welfare facilities for site personnel;
- Installation of appropriate security and lighting;
- Effective prevention of oil, grease or other objectionable matter being discharged from any working area;
- Provision of appropriate waste management;
- Maintenance of contaminant measures as required;
- No discharge of site runoff or water discharge without agreement of the relevant authorities;
- Open fires will be prohibited at all times; and
- Material handling and/or stockpiling of materials, where permitted, will be appropriately located to minimise exposure to wind. Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods (refer to **Appendix A**).

6.3.2 Hours of Working

6.3.2.1 Core Working Hours

The timing of the decommissioning activities, working hours and the rate of progress of the decommissioning works are a balance between efficiency of the decommissioning and minimising the impact on the local community and road users. Constraints will be specified in the contract documents, generally restricting working hours on the proposed decommissioning works, particularly onshore. Offshore operations may be continuous for specific periods, on a 24 hour, 7 day a week basis.

Typically, the decommissioning working hours at the onshore Inch Terminal site will be limited to:

- 7am – 7pm, Monday to Friday; and
- 7am – 2pm, Saturday.

6.3.2.2 Additional Working Hours

It is anticipated that some work may be required outside of the decommissioning core working hours at the onshore Inch Terminal site.

Any such working hours outside the normal decommissioning working hours will be agreed with DCCAE and CCC, as appropriate. For such works, the planning of these works will take consideration of nearby sensitive receptors, such as local residents.

In the case of work required in an emergency or which if not completed would be unsafe or harmful to workers, the public or local environment, DCCAE and CCC will be informed as soon as reasonably practicable of the reasons and likely duration and timing (outside of the core working hours).

6.3.3 Security

Security at the Inch Terminal site will be the responsibility of the contractor(s) who will provide adequate security to prevent unauthorised entry to or exit from any working areas. The following measures are likely to be used to prevent unauthorised access:

- Install CCTV and alarm systems, where required;
- Provide adequate security guards and patrols, where required;
- When there is no site activity, set appropriate site security provisions in motion; and
- Prevent access to restricted areas by securing equipment on site such as scaffolding and ladders.

6.3.4 Site Boundary

It is proposed to utilise the existing site boundary fencing to delineate and secure the site. The existing fencing will be checked to ensure it is appropriate (at least 2.4 m hight) and will provide a secure boundary to what can be a dangerous environment for those that have not received the proper training and are unfamiliar with decommissioning operations.

The following measures will be applied in relation to fencing:

- Maintenance of adequate fencing to an acceptable condition to prevent unwanted access to working areas and provide site security where required;
- Temporary fences are likely to be used in certain areas, such as for short term occupation of working areas;
- Display information boards with out of hours contact details, telephone helpline number (for comments) and information on the works;
- Erect notices on platform boundaries to warn of hazards on site such as works access, etc.; and
- Keep fencing free of graffiti or posters.

6.3.5 Services and Lighting

6.3.5.1 Services and Utilities

Working areas at the Inch Terminal site will be powered by mains supplies or diesel generators where an electrical supply is not available.

The contractor(s) will be responsible for undertaking their own surveys to establish the full extent of underground services at the Inch Terminal site prior to the commencement of the decommissioning works to support any surveys already undertaken as part of early design work and statutory consent applications.

6.3.5.2 Lighting

All floodlights used for site lighting will be cowled and angled downwards to minimise spillage to surrounding areas. The following measures will be applied in relation to site lighting:

- Lighting will be provided with the minimum luminosity sufficient for safety and security purposes. Where practicable, precautions will be taken to avoid shadows cast by the site hoarding on surrounding areas;
- Motion sensor lighting and low energy consumption fittings will be installed to reduce usage and energy consumption; and
- Lighting will be positioned and directed so as not to unnecessarily intrude on adjacent areas and ecological receptors, nor to cause distraction or confusion to passing navigation lights for water traffic.

6.3.6 Welfare Facilities

Welfare facilities will be provided, as appropriate, for staff and site personnel such as locker rooms, toilets etc. The location of these will be identified as part of the detailed EMP.

6.3.7 Reinstatement of Working Areas on Completion

At the Inch Terminal site, the contractor(s) will reinstate all working areas and access routes as work proceeds during the decommissioning works. All plant, equipment, materials and temporary infrastructure will be removed at the earliest opportunity.

6.4 Health and Safety

The contractor(s) will be required to ensure all relevant health and safety, fire safety and security requirements are in place prior to the commencement of the decommissioning works and in accordance with relevant legislative requirements in addition to the specifications of DCCAE, CCC, CRU and relevant offshore requirements (e.g. adherence to MARPOL (The International Convention for the Prevention of Pollution from Ships) standards).

Relevant Irish and EU health and safety legislation would be complied with at all times by all staff and personnel during the decommissioning works. Further, contractors will also have to ensure that all aspects of their works comply with good industry practice and all necessary consents, licences and authorisations that have been put in place for the decommissioning works.

Refer to **Section 3.8** for further details on health and safety.

7 Environmental Management

7.1 Introduction

This section describes the specific environmental requirements identified as part of the EIAR that will need to be adhered to by the contractor(s).

It should be noted that **Sections 7.2** to **7.11** provide a summary of minimum requirements to be complied with and which provide the required certainty with regard to the assessment of impacts presented in the EIAR. It is expected that the contractor(s) will develop these further in the detailed EMP. It is intended that the measures set out herein will be discussed in more detail with relevant stakeholders as required in order to support the identification of any additional measures to be taken account of during the decommissioning works.

7.2 Physical Presence: Decommissioning Activities

To minimise potential physical presence effects associated with the decommissioning works, all activities will be undertaken in adherence to relevant legally required standards and controls, which include:

- Notices to Mariners will be issued to cover decommissioning work associated with each consent application to communicate the nature and timing of the activities to relevant other users of the sea. Guard vessels or standby vessels will be used during well abandonment to monitor statutory 500m zones and minimise the potential for interaction between decommissioning vessels and other users;
- All vessels used in the decommissioning operations will meet applicable national and international standards (e.g. in terms of signals and lighting); and
- Lighting and marking of the jackets if left in 'lighthouse mode' for a period will be agreed with the Commissioners for Irish Lights to establish new Aids to Navigation (AtoN) to be installed until their removal. An up to date Navigational Risk Assessment with traffic analysis will be undertaken to inform the Commissioners of Irish Lights to set the AtoN requirements. All lighting and marking will comply with IALA Recommendation 0-139 on the Marking of Man-Made Offshore Structures (2013), and Notices to Mariners will communicate the new lighting and marking arrangements.

7.3 Physical Presence: Legacy of Materials Left *In Situ*

There are a number of aspects of the proposed decommissioning works which will result in legacy materials being left *in situ* with the potential for longer term effects.

It is planned that rock cover remediation will be used to reduce the potential snagging risk associated with decommissioning pipelines and umbilicals left *in*

situ or with any potential protruding jacket leg stumps. The following measures will be implemented as part of the rock placement programme:

- The remediation of all pipeline/umbilical end sections and freespans using overtrawlable rock berms, with the option to rock cover all exposed pipeline sections to further reduce risks to third parties;
- Accurate rock-placement will be assured by the use of a Remotely Operated Vehicle (ROV) guided fall pipe system on the rock-placement vessel;
- On-going consultation with fisheries representatives and maritime authorities;
- All infrastructure decommissioned *in situ* will be surveyed post-decommissioning to accurately record their location and status. This information will be included on navigational charts and also passed to representatives of the fishing community; and
- Standard overtrawling surveys will also be undertaken where wellheads, spoolpieces etc. are removed to confirm the area is clear of debris and snagging hazards.

7.4 Physical Disturbance

The decommissioning activities will result in some seabed disturbance (0.46-0.76km^2), the effects of which are considered to be minor and temporary. Mitigation is proposed to further reduce the significance of these effects and includes:

- the minimisation of rig and vessel movements which require anchoring where possible;
- the use of Dynamic Positioning (DP) on most vessels where practicable to reduce anchor deployment – note that sensitive features such as wrecks or Annex I habitats have not been detected in previous surveys; and
- For each option/activity involving rock placement, efforts will be made to minimise the volume of rock deployed, subject to achieving the required technical function.

7.5 Underwater Noise

Wherever possible, through careful activity phasing, vessel synergies will be sought to minimise vessel days and associated noise emissions. The environmental assessment concludes that there is no likely significant effect on marine mammals from underwater noise as a result of the proposed decommissioning works and therefore it is not proposed to engage a Marine Mammal Observer (MMO) during the works. Any post-decommissioning survey works will require appropriate consent applications which will detail the proposed survey methods and mitigation measures.

7.6 Discharges to Sea

To minimise potential effects from discharges to sea associated with the decommissioning works, all activities will be undertaken in accordance with regulatory and policy controls, including:

- Existing operational controls for the management of routine marine discharges from the decommissioning activities (e.g. adherence to MARPOL standards); and
- Chemicals selected for use and discharge for well abandonment will be subject to a Permit to Use or Discharge Added Chemicals (PUDAC).

All potential discharges associated with decommissioning the Kinsale Area facilities (e.g. from pipelines and well abandonment) are considered to be minor. Discharges from well abandonment will be minimal, subject to treatment/filtration, with chemicals being selected on the basis of the lowest hazard quotient for the required technical function.

7.7 Waste: Materials Recycling, Reuse and Disposal

The decommissioning works shall be undertaken in a manner which maximises the potential for reuse and recycling, including source segregating waste where appropriate. Management of all waste will be undertaken in accordance with the relevant waste legislation and only permitted and licensed waste facilities will be used.

7.7.1 Draft Resource and Waste Management Plan

A draft Resource and Waste Management Plan has been developed to establish the minimum standards that the contractor(s) must apply during the decommissioning works. A detailed Resource and Waste Plan will be prepared by the contractor(s) which will be submitted to Kinsale Energy for approval prior to commencement of the decommissioning works.

The draft Resource and Waste Management Plan states the following:

- The Kinsale Area Decommissioning Project will comply with all relevant waste and resource management policy and legislation that applies (including International, European and Irish policy and legislation);
- All relevant obligations governing storage, transfer, treatment and disposal of all wastes arising from the Kinsale Area Decommissioning Project will be complied with and the contractor(s) will implement approved method statements and procedures for transporting and managing waste as part of their detailed Resource and Waste Management Plan;
- Resource and waste management objectives to be applied to the Kinsale Area Decommissioning Project to maximise the potential for reuse and recycling are:
    - Target 90% recycling rate by weight;

  - Minimise disposal of waste to landfill; and
  - Minimise environmental impacts of waste management.

- A fully detailed description of solid waste generation associated with each of the key elements of the Kinsale Area Decommissioning Project will be provided in the detailed Resource and Waste Management Plan (estimated waste quantities have been calculated from detailed analysis of the waste arisings/material surpluses as outlined in **Section 3.7**); and
- The contractor(s) will put in place all relevant waste authorisations (detailing the name, address and authorisation details of proposed recovery and disposal facilities which will be used for all wastes generated from the decommissioning project) in advance of the removal of any waste and will maintain a register of resource and waste management information throughout the Kinsale Area Decommissioning Project.

Waste recovery and disposal will be undertaken at authorised waste facilities and the typical management methods for different waste streams associated with the Kinsale Area Decommissioning Project are summarised in **Table 2**.

Table 2: Waste Management Methods

Waste stream	Removal method	Waste management method
Platforms	Platform jacket legs will be cut at the top of footings at the seabed before removal. Topsides will be disconnected from jacket and removed. Materials will be transferred from the site on vessels to authorised waste facilities.	Steel will be brought to a dismantling facility and recycled where appropriate at authorised waste facilities. Concrete will be brought onshore for reuse and recycling at authorised waste facilities.
Wellhead protection structures	Wellhead Protection Structures will be dismantled and casings to 3m below the seabed removed to allow access to the wells.	Steel and concrete will be brought onshore for reuse and recycling at authorised waste facilities.
Subsea protection materials	Concrete mattresses and grout bag materials will be removed only when necessary to allow access to the tie-in facilities underneath.	Steel and concrete will be brought onshore for reuse and recycling at authorised waste facilities.
Non-ferrous metals	Removed from platforms as part of the dismantling and removal of the topsides and jackets.	Non-ferrous metals will be brought onshore for reuse and recycling at authorised waste facilities.
Asbestos Containing Materials	Protocols to be followed to remove asbestos including transfer of small scale quanitities into heavy gauge polythene bags for transfer. Asbestos Containing Materials will be brought onshore for disposal by authorised handlers.	Asbestos and other hazardous materials will be handled by a licensed operator and disposed of at a licensed facility.
Routine wastes from the decommissioning vessels	Transferred onshore to port in line with European Communities (Port Reception Facilities for ShipGenerated Waste and Cargo Residues) Regulations 2003 (S.I. No. 117 of 2003) and MARPOL.	Disposal will be undertaken in accordance with normal procedures. Waste will be recycled, reused and/or disposed of (depending on type) in appropriately licensed facilities.

Waste stream	Removal method	Waste management method
Hazardous waste	Where practicable, hazardous waste will be removed from the platforms prior to dismantling and be transferred to appropriate waste facilities for treatment and disposal.	Chemicals, lubricants, hydrocarbon contaminated materials, diesel – disposed of to an appropriately licensed facility, if it cannot be reused or recycled.

7.8 Energy Use and Atmospheric Emissions

It is considered that there is limited scope for mitigation measures to reduce the residual effect on atmospheric Greenhouse Gas (GHG) loading, or any local effects on air quality. There is the potential to minimise time in the field and associated vessel days and related emissions by making use of vessel synergies and careful activity phasing which would form part of standard programme management, and there is the potential to make further emissions reductions during contractor selection (e.g. those using modern efficient vessels); however neither of these are considered to significantly alter the predicted effect.

Emissions from material flows will be minimised by using a waste hierarchy approach consistent with the Waste Framework Directive 2008/98/EC; establishing where there is scope for equipment and material re-use and recycling, with disposal only taking place where no feasible alternative is available.

7.9 Conservation Sites and Species

No further mitigation beyond those already indicated in **Sections 7.2** to **7.8** have been identified for conservation sites and species.

7.10 Accidental Events

7.10.1 Off-Shore Accidental Events

To minimise potential effects from accidental events associated with the offshore decommissioning works, all activities will be undertaken in accordance with regulatory and policy controls, including:

- Other users of the Kinsale Area, which include fisheries, shipping and other sea users such as recreational sailing and those involved in maritime activities such as surveys, will be alerted to the decommissioning activities via publication of Notices to Mariners detailing rig and vessel positions, activities and timing and by full navigation lighting on the rig and vessels;
- A standby vessel will minimise the potential for interaction between the rig and other users, and much of the decommissioning activity will be within existing exclusion zones thereby further reducing the potential for interaction; and
- All vessels and the rig to be used during decommissioning will be subject to audit and expected to adhere to Kinsale Energy HES policy. They will have in place the relevant, current SOPEP in accordance with MARPOL and/or an oil spill contingency plan, which would be implemented in the event of an accidental event.

Kinsale Energy risk management measures and legislative compliance minimise the risk that an accidental event could occur (noting the already very low frequencies of such incidents relating to oil and gas activities), and therefore minimise the likelihood of any resultant significant effect. This includes measures

which will be in place to avoid, as far as possible, spills from bunkering and supply operations, and general rig operations, including processes and procedures (e.g. bunkering procedures with reference to sea-state and daylight hours where practicable; procedure to be agreed with the Department of Transport, Tourism and Sport (DTTAS)), colour coding of hoses, storage of hoses in a safe area away from risk of physical damage, inspection of hose couplings, critical valves to be locked and controlled by permit, and general good housekeeping).

During the removal of topsides, jackets, wellheads, spool pieces and other associated infrastructure, every care will be taken to minimise dropped objects and the generation of debris. Any dropped objects will be recovered during decommissioning operations and an independent seabed debris clearance survey conducted once decommissioning operations have been completed to verify that debris clearance has been completed.

7.10.2 On-Shore Accidental Events

Accidental events/environmental emergencies at the onshore Inch Terminal site requiring intervention may include uncontained spillage, leak or loss of containment incident (contractor inventory only as Inch Terminal will be hydrocarbon free), fire, etc.

A list of site emergency contact numbers and the general emergency response actions will be compiled by the contractor(s) and posted at strategic locations throughout the site, such as the site entrance, safety stop-boards and contractor cabins. The emergency contact number list will be updated by each contractor to include their Safety Representative contact name and telephone number.

An example of an emergency response action is as follows for action to be taken in the event of a spillage:

1. **IF SAFE**, stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
2. **IF SAFE** (USE PPE), contain the spill using the absorbent spills material provided. Do not spread or flush away the spill.
3. Cover or bund-off any vulnerable areas where appropriate.
4. If possible, clean up as much as possible using the absorbent spills materials.
5. Do not hose the spillage down or use any detergents.
6. Contain any used absorbent material so that further contamination is limited. Note: This material is a waste and must be treated as such. The Safety Data Sheet (SDS) for the material will determine whether the spill material is hazardous or non-hazardous and will need to be disposed of accordingly.
7. Notify the Employers Representative at the earliest opportunity.
8. An incident investigation should be performed in accordance with procedures and the report sent to the Kinsale Energy Representative.

The Employers Representative will ensure that fully detailed records are maintained of any "incident/event" likely to cause harm to the environment. Contractors who report an incident will ensure details are identified and recorded.

Environmental incidents will be recorded on an appropriate form.

Complaints and Follow up Actions on the construction site will be managed by the Employers Representative in liaison with Kinsale Energy and contractors will ensure that all complaints are recorded according to Kinsale Energy requirements. A complaints log will be kept, and any complaint from interested parties will be actioned and recorded.

7.11 Monitoring Programme

A draft monitoring programme has been prepared and is included as **Appendix B** to this report. This will require to be updated and implementated as part of the Contractors detailed EMP. It will be agreed with Kinsale Energy at this stage. This monitoring programme sets out the minimum monitoring requirements for the proposed decommissioning works.

8 References

BRE/TDI (2003) *Control of Dust from Construction and Demolition Activities.*

BS 5228-1 and 2:2014+A1:2014 (British Standards, 2014) *Code of practice for noise and vibration control on construction and open sites.*

ISO (2015) *ISO 14001:2015 Environmental management systems -- Requirements with guidance for use.*

ISO (2007) *ISO 1996: 2007: Acoustics – Description, measurement and assessment of environmental noise*.

TII (2014) *Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes.*

TII (2007) *Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan.*

Appendix A

Draft Dust Minimisation Plan

A1 Draft Dust Minimisation Plan

This draft dust minimisation plan presents a number of measures to reduce impacts on ambient air quality from the potential generation of dust during the proposed decommissioning works at the Inch Terminal site, Co. Cork.

In producing this plan, guidance has been taken from the best available techniques listed in the BRE/DTI document *'Control of Dust from Construction and Demolition Activities'* (2003).

The following avoidance, remedial or reductive measures will be implemented as part of the dust minimisation plan:

- Vehicle speed limits will be enforced at the site. It is proposed that site traffic is restricted to 20 km/hr. This will help to minimise the occurrence of dust re-suspension.
- Vehicles delivering or removing materials on site will be loaded carefully to reduce the risk of spillage from the vehicles onto nearby roads.
- Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the contractor through regular servicing of machinery.
- Surrounding public roads used by trucks to access to and egress from the site will be inspected regularly and cleaned, using an approved mechanical road sweeper, when required. Roads will be cleaned subject to local authority requirements. Site roads will be cleaned on a daily basis, or more regularly, as required.
- During very dry periods when dust generation is likely or during windy periods, working areas and vehicles delivering material with dust forming potential will also be sprayed with water, as appropriate.
- Wheel wash facilities will be provided for use by all vehicles exiting the site prior to them entering onto the surrounding public roads. These facilities will contain rumble grids to remove excess mud and other waste from wheels, ensuring that these potential dust producing materials are not released onto surrounding public roads. The wheel wash facilities will be self-contained, ensuring that wastewater discharges to nearby water bodies are not necessary. The facilities will be located away from sensitive receptors, where possible.
- Areas where materials will be handled and stockpiled will be positioned away from main site access roads. These areas will also be designed to minimise their exposure to wind – all stockpiles shall be kept to the minimum practicable height with gentle slopes.
- There shall be no long-term stockpiling on site and storage time will be minimised.
- Material drop heights from plant to plant or from plant to stockpile will be minimised.

The degree of implementation for some of the above measures (water spraying etc.) will be determined by rainfall levels on site. The use of excessive levels of water to suppress dust will be minimised when not required. This will help limit potential drainage related impacts on site.

Dust deposition monitoring will be carried out at the nearest sensitive receptors to the proposed decommissioning works for the duration of the decommissioning works to ensure the effectiveness of the measures outlined above. Bergerhoff Dust Deposit Gauges will be positioned at each sensitive receptor. Results will be compared with TA Luft guidelines. The guideline dust deposition limit is 350 $mg/m^2/day$ (averaged over a 30-day period). This guideline limit is widely applied in Ireland to identify periods of dust nuisance.

All potential causes for the exceedance will be analysed. These will include the decommissioning works taking place, potential off site sources and meteorological conditions. Should the decommissioning works taking place be identified as the primary cause of the exceedance, the contractor(s) will ensure that the mitigation measures listed above are improved upon. Should exceedances of the guideline limit value continue to occur following these improvements, the contractor will provide alternative mitigation measures and/or will modify the decommissioning works taking place.

Appendix B

Draft Monitoring Programme

B1 Draft Monitoring Programme

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
1	Daily/Weekly Environmental Site Inspection	Routine inspections of decommissioning activities will be carried out by the Environmental Manager on a daily basis to ensure all necessary environmental measures relevant to the decommissioning activities are being effectively implemented by staff, ensuring legal and contractual conformity. More detailed inspections would be undertaken by the Environmental Manager on a weekly basis. The weekly inspections would be appropriately documented by the Environmental Manager and copies of these records and any action required to be undertaken should be made available to the Employers Representative.	Best practice	Yes	N/A	Responsibility: Environmental Manager. No additional resources required
2	Monthly Environmental Site Inspection	Detailed inspections would be undertaken by the Environmental Manager on a weekly basis to ensure all necessary environmental measures relevant to the decommissioning activities are being effectively implemented by staff, ensuring legal and contractual conformity. Each month one of the weekly inspections will include a review of environmental documentation and records. The monthly inspection will be recorded on a standard form and reported to the Employers Representative within five days of the inspection taking place.	Best practice	Yes	N/A	Responsibility: Environmental Manager. No additional resources required

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
3	Environmental Performance Audits of the Contractor	For the duration of the contract(s), the environmental performance of the contractor will be monitored through site inspections and audits. The programme for monitoring, inspections and audits shall be specified in the contract and it is likely to be a combination of internal inspections and independent external audits that may be either random or routine. Records of all inspections carried out should be recorded on standard forms and all actions should be closed out in a reasonable time. The detailed EMP would include further details of inspection procedures.	Best practice	Yes	N/A	Responsibility: Kinsale Energy/ External Auditor. No additional resources required

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
4	EMS Conformance Audits	Planned and documented audits aimed at evaluating the conformance of the EMS would also be carried out by the Environmental Manager. As part of the detailed EMP, the Environmental Manager will establish a schedule for internal audits and this inspection calendar will be made available to the Employer's Representative. An environmental system audit will be scheduled at least once for each major contract. The contractor will be required to prepare standard forms for reporting and audit items shall include but not be limited to the following activities: • Review of environmental documentation to establish if relevant requirements are being achieved and if continual improvement is occurring; • Site inspection and interviews with onsite personnel; and • Reporting with recommendations. For any environmental nonconformities found, the auditor will prepare a Corrective Actions Report to describe and record the findings of the non-conformance. The verification of previous Corrective Actions Reports should be also recorded. Upon completion of an audit, the auditor will review all Corrective Actions Reports and prepares an Audit Report to summarise: • Corrective action requests raised; • Previous corrective action requests closed; and	Best practice	Yes	N/A	Responsibility: Contractor, Environmental Manager and Employers Representative. No additional resources required

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
		• Observations made during the audit. The Environmental Manager will be entitled to participate in all audits. Notwithstanding this, the Employers Representative shall produce and provide the contractor with a copy of each audit report within five working days of the audit. Each audit report will detail the findings from the auditor, specify non-conformances identified and outline the proposed corrective action.				

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
5	Corrective Action Investigations	Corrective actions are measures to be implemented to rectify any non-conformances (i.e. exceedance of criteria or targets) identified during monitoring, inspections and/or audits. Where a corrective action is required, in the first instance, an investigation should be undertaken by the Environmental Manager to identify the cause of any non-conformances. Appropriate remedial measures shall be identified and implemented as soon as practicable to prevent further exceedances. If necessary, the appropriate statutory authority and stakeholders will be notified. Where new or amended measures are proposed, the EMP will be updated accordingly by the Environmental Manager and the Employer's Representative should be informed at the earliest opportunity.	Best practice	Yes	N/A	Responsibility: Environmental Manager. No additional resources required

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
6	Oil/Fuel Spills Response	The following steps provide the procedure to be followed by the contractor in the event of an oil/fuel spill occurring on site: • Identify and stop the source of the spill and alert people working in the vicinity; • Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action; • If applicable, eliminate any sources of ignition in the immediate vicinity of the incident; • Contain the spill using the spill control materials or other material as required. Do not spread or flush away the spill; • If possible, cover or bund off any vulnerable areas where appropriate; • If possible, clean up as much as possible using the spill control materials; • Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited; • The Environmental Manager shall inspect the site as soon as practicable and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring; and • The Environmental Manager will notify the appropriate stakeholders such as Cork County Council, Department of Communications, Climate Action and Environment, IRCG, CRU, Department of Housing, Planning and Local Government and/or the EPA as appropriate.	Best practice	Yes	N/A	Responsibility: Contractor and Environmental Manager. A response may also be required by stakeholders such as IRCG, CRU, DCCAE, Cork County Council and the Environmental Protection Agency as appropriate. This list is not exhaustive and depends on the nature of the spill.

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
7	Emergency Incident Response	In the event of an emergency incident occurring, the contractor will be required to investigate and provide a report including the following, as a minimum: • A description of the incident, including location, the type and quantity of contaminant and the likely receptor(s); • Contributory causes; The contractor will consult with the relevant statutory authorities, stakeholders and relevant parties such as the Health and Safety Authority, the Fire Authority, the Ambulance Service, the EPA and Cork County Council when preparing and developing response measures. Further, if any sensitive receptor is impacted, the appropriate environmental specialists will be informed and consulted with accordingly. Any response measures will be incorporated into an updated Emergency Incident Response Plan that should be disseminated accordingly to staff, Kinsale Energy and the Employer's Representative.	Best practice	Yes	N/A	Responsibility: Contractor. A response may also be required by l. This list is not exhaustive and depends on the nature of the emergency incident.
8	Weather Forecast Monitoring- Extreme Weather Events	The contractor will consider the impacts of extreme weather events and related conditions during the decommissioning works. The contractor will use a short to medium range weather forecasting service from Met Eireann or other approved meteorological data and weather forecast provider to inform short to medium term programme management, environmental control and mitigation measures. The detailed EMP should consider all measures deemed necessary and appropriate to manage extreme weather events and should	Best practice	Yes	N/A	Responsibility: Contractor. Resources Required: Short to medium range weather forecasting service from Met Eireann

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
		specifically cover training of personnel and prevention and monitoring arrangements for staff. As appropriate, method statements should also consider extreme weather events where risks have been identified.				
9	Unexpected Discoveries	The contractor is obliged to put in place appropriate procedures to be employed in the event of encountering unexpected contamination during the decommissioning works. The contractor will be required to develop appropriate procedures as part of their detailed EMP and the Environmental Manager will ensure that specialists are facilitated to ensure management in accordance with industry best practice and effective compliance with the relevant legislation. All unexpected discoveries will be reported to the appropriate authorities and documented in an appropriate manner.	Best practice	Yes	N/A	Responsibility: Contractor and Environmental Manager. Appropriate authorities to be consulted as appropriate depending on the nature of the unexpected discovery.
10	Underground Service Surveys	The contractor will be responsible for undertaking their own surveys to establish full extent of underground services at the onshore Inch Terminal site prior to the commencement of the decommissioning works to support any surveys already undertaken as part of early design work and statutory consent applications.	Best practice	Yes	N/A	Responsibility: Contractor. Resources Required: Third party specialist survey companies may be required to be appointed by the contractor.
11	Guard vessel monitoring of 500m zones	Guard vessels or standby vessels will be used during well abandonment to monitor statutory 500m zones and minimise the	Necessary under legislation	Yes	N/A	Responsibility: Contractor. No

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
		potential for interaction between decommissioning vessels and other users.				additional resources required
12	ROV-guided fall pipe system on the rock-placement vessel.	Accurate rock-placement will be assured by the use of an ROV-guided fall pipe system on the rock-placement vessel.	Best practice	Yes	N/A	Responsibility: Contractor. No additional resources required
13	Consultation with fisheries representatives and maritime authorities.	On-going consultation with fisheries representatives and maritime authorities will be undertaken throughout the decomissioning works. A consultation strategy will be included in the detailed EAR by the contractor and agreed with Kinsale Energy.	Best practice	Yes	N/A	Responsibility: Contractor. No additional resources required
14	Post decomissioning infrastructure surveys	All infrastructure decommissioned in situ will be surveyed post-decommissioning to accurately record their location and status. This information will be included on navigational charts and also passed to representatives of the fishing community.	Best practice	Yes	Yes	Responsibility: Contractor. Resources required: Third party specialist survey companies may be required to be appointed by the contractor. Maritime authorities and representatives of the fishing communities.
15	Overtrawling Surveys	Standard overtrawling surveys will also be undertaken where wellheads, spoolpieces etc. are removed to confirm the area is clear of debris and snagging hazards.	Best practice	Yes	Yes	Responsibility: Contractor. Resources Required: Third party specialist survey companies

Item	Title	Monitoring objectives, measures and programme proposed	Is the monitoring measure necessary under legislation or being carried out as best practice?	Is the monitoring proposed sufficient to identify important unforeseen environmental effects? (Yes/No)	State whether monitoring is required to manage residual impacts	Outline the responsibilities for the implementation of monitoring, including roles, responsibilities and resources required
						may be required to be appointed by the contractor.
16	Tracking of materials and wastes	The contractor will maintain a detailed tracking and quantitative accounting system for the handling of all materials and wastes (ferrous, non-ferrous and non-metallic items) being exported from and imported to the site.	Best practice	No	Yes	Responsibility: Contractor. No additional resources required
17	HES Audits	All vessels and the rig to be used during decommissioning will be subject to audit and expected to adhere to Kinsale Energy HES policy. They will have in place the relevant, current Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with MARPOL and/or an oil spill contingency plan, which would be implemented in the event of an accidental event.	Best practice	No	Yes	Responsibility: Contractor in consultation with Kinsale Energy