Our Ref: 01.01.01.01-5177U
UKOP Doc Ref:1209335

Offshore Petroleum Regulator
for Environment & Decommissioning

ITHACA ENERGY (UK) LIMITED
13 QUEEN'S ROAD
ABERDEEN
AB15 4YL

Registered No.: SC272009

Date: 10th June 2022

Department for Business, Energy
& Industrial Strategy

AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [redacted]
Fax

www.gov.uk/beis
bst@beis.gov.uk

Dear Sir / Madam

THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020
PIPELINE PL6053 Captain EOR polymer piepline

A screening direction for the project detailed in your application, reference PL/2261/0 (Version 2), dated 8th June 2022 has been issued under regulation 6 of the above Regulations. The screening direction notice, and any relevant conditions and comments are attached. A copy of this screening direction will be forwarded to the application consultees, the Oil and Gas Authority and published on the gov.uk website.

If you have any queries in relation to this screening direction or the attachments, please do not hesitate to contact [redacted] on [redacted] or email the Environmental Management Team at bst@beis.gov.uk.

Yours faithfully

Signature Not Verified
Digitally signed by Environmental Section
Date: 2022.06.10 11:35:22 BST
Reason: On behalf of the Department for Business Energy and Industrial Strategy
Location: The Department for Business Energy and Industrial Strategy

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THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020

SCREENING DIRECTION CONFIRMING THAT AN ENVIRONMENTAL IMPACT ASSESSMENT IS NOT REQUIRED

PIPELINE PL6053 Captain EOR polymer piepline

PL/2261/0 (Version 2)

Whereas ITHACA ENERGY (UK) LIMITED has made an application dated 8th June 2022, under The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020, and whereas the Secretary of State has considered the application and is satisfied that the project is not likely to have a significant effect on the environment; in exercise of the powers available under regulation 6, the Secretary of State hereby directs that the application for consent in respect of the project need not be accompanied by an Environmental Impact Assessment, provided that the project is carried out as described in the application for the screening direction and in accordance with the conditions specified in the attached schedule.

In giving a screening direction under regulation 6 of the above Regulations, the Secretary of State accordingly gives agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the applications: PWA/3815, PWA/3829, PWA/3895.

Effective Date: 10th June 2022

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SCHEDULE OF SCREENING DIRECTION CONDITIONS

The grant of this screening direction is conditional upon the screening direction holder complying with the following conditions.

1 Screening direction validity

The screening direction shall be valid from 10 June 2022 until 30 May 2023.

2 Commencement and completion of the project

The holder of the screening direction must confirm the dates of commencement and completion of the project covered by the screening direction. Notification should be sent by email to the Environmental Management Team Mailbox: bst@beis.gov.uk

3 Nature of stabilisation or protection materials

Rock deposits

10,000 tonnes of clean, inert rock material, containing minimal fines, (The quantity of rock deposited should be the minimum required to provide the necessary stabilisation or protection, and any surplus rock must be returned to land).

Grout bags deposits

56.25 tonnes of grout contained within 25 kilogramme capacity biodegradable bags. (The number of bags deposited should be the minimum required to provide the necessary protection, and any surplus bags must be returned to land).

Concrete mattress deposits

104 concrete mattresses, each measuring 6 metres x 3 metres x 150 centimetres. (The number of mattresses deposited should be the minimum required to provide the necessary protection, and any surplus mattresses must be returned to land).

4 Location of pipeline and stabilisation or protection materials

Within an area bounded by the coordinates as specified in the application.

5 Prevention of pollution

The holder of the screening direction must ensure that appropriate measures are taken to minimise discharges, emissions and waste, in particular through the

appropriate use of technology; and to ensure that necessary measures are taken to prevent incidents affecting the environment or, where they occur, to limit their consequences in relation to the environment.

6 Inspections

Should the Department consider it necessary or expedient for an inspector appointed by the Secretary of State to investigate whether the conditions of the screening direction are being complied with, the holder of the screening direction shall afford the inspector with such facilities and assistance as the inspector considers necessary to exercise the powers conferred by the regulations. The holder of the screening direction shall additionally ensure that copies (electronic or paper) of the screening direction and any other relevant documents are available for inspection by the inspector at:

a) the premises of the holder of the screening direction; and
b) the facilities undertaking the project covered by the screening direction.

7 Monitoring

The results of any pre or post-placement surveys carried out to confirm the necessity for the deposits covered by the screening direction and/or to confirm the accurate positioning of the stabilisation or protection materials, should be forwarded to the Department following completion of the surveys

8 Check monitoring

Should the Department consider it necessary or expedient to undertake an independent monitoring programme to assess the impact of the project covered by the screening direction, the screening direction holder shall afford the Department with such facilities and assistance as the Department considers necessary to undertake the work.

9 Atmospheric emissions returns

Following completion of the project covered by the screening direction, the holder of the screening direction shall report all relevant atmospheric emissions, such as combustion emissions, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms.

10 Deposit returns

The holder of the screening direction shall submit a report to the Department following completion of the deposit covered by the screening direction, confirming the quantity of materials deposited and the estimated area of impact, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting form. Where no deposits are made, a 'nil' return is required.

11 Unauthorised deposits

Following completion of the project covered by the screening direction, the holder of the screening direction shall recover any materials accidentally or temporarily deposited on the seabed, such as debris, temporary containers, structures or deposits, or scientific instruments, and shall return the materials to land. If it is not possible to recover any of these deposits, full details of the materials remaining on the seabed must be reported to the Department in accordance with the requirements of Petroleum Operations Notice No.2 (PON2).

12 Screening direction variation

In the event that the holder of the screening direction proposes changes to any of the particulars detailed in the application for a screening direction, the holder must notify the Department immediately and submit an application for a post screening direction amendment. The post screening direction must be in place prior to the amended proposals taking effect.

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COMMENTS ON THE APPLICATION FOR SCREENING DIRECTION

Section 1

The attention of screening direction holders is drawn to the following provisions regarding The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020.

1) You are deemed to have satisfied yourself that there are no barriers, legal or otherwise, to the carrying out of the project covered by the screening direction. The issue of a screening direction does not absolve the screening direction holder from obtaining such authorisations, consents etc that may be required under any other legislation.

2) The Department would draw your attention to the following comments:

The Department has no comments

3) All communications relating to the screening direction should be addressed to:

bst@beis.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Business, Energy & Industrial Strategy
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [redacted]
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SCHEDULE OF SCREENING DIRECTION DECISION REASONS

The Secretary of State has decided that, based on the information provided, the

project is not likely to have a significant effect on the environment. The main reasons for this decision are:

1) Decision reasons

The following provides a summary of the assessments undertaken by OPRED to

determine whether an Environmental Impact Assessment is required for this project, summarises the information considered, the potential impacts and sets out the main reasons for the decision made. In considering whether an Environmental Impact Assessment is required or not, the following have been taken into account:

a) the information provided by the developer;

b) the matters listed in Schedule 5 of The Offshore Oil and Gas Exploration,

Production, Unloading and Storage (Environmental Impact Assessment Regulations

2020) (the Regulations);

c) the results of any preliminary verifications or assessments of the effects on

the environment of the project; and

d) any conditions that the Secretary of State may attach to the agreement to the

grant of consent.

Characteristics of the Project

Having regard, in particular, to the matters identified at paragraphs 1(a) to (g) of

Schedule 5 to the Regulations, the characteristics of the project include the

following:-

Summary of the Project

> Removal of tie-in spools (x2), umbilical jumper and associated deposits (recovery of 9 mattresses and 150 x 25Kg grout bags) at A2Y well location. The A2Y well will be suspended to allow new well (UB05P) to use the A2Y well slot. This well suspension is not part of this application.

Installation and leak testing of new tie-in spools (x2) and control jumper (x1) connecting to the new production well (UB05P), which will re-use the A2Y well slot and control system at the Area C manifold, and the installation of protection material (20 mattresses and 1000 x 25Kg grout bags)

Installation and leak testing of the new 5.5km polymer injection flowline (PL6053) between the BLP'A'

Platform and existing water injection well 28B in Area B. This water injection well will be converted to a polymer injection well. Protection material will be used (84 mattresses, 1250 x 25Kg grout bags and 5000t rock, with a contingency of an additional 5000t rock). The new polymer injection flowline will initially be laid on the seabed where it will be jet trenched into position, with a target depth of 1m below the seabed. Where there are pipe crossings, the pipeline will transition from the trench and will be surface laid. Concrete mattresses, grout bags and rock dump will provide protection within these areas.

Installation of a new 51" riser caissonto leg D2 of the BLPA jacket, which will be wet stored within the BLPA platform 500m safety zone,prior to positioning.

Description of the Project

The Captain development began production with the field tied back to a Floating, Production, Storage and Offloading Vessel (FPSO). There were 2 subsequent topside developments - a Bridge Linked platform which serves Area's B and c drilling centres, and a Wellhead Protection Platform (WPP'A') which is a self-contained drilling rig position above Area A drill centre. Crude oil is exported from the FPSO via a shuttle tanker, and gas is exported and imported via the Frigg pipeline.

Produced water has been injected at Captain to maintain reservoir pressure since early field life. Polymer solution injection was proposed in the original Field Development Plan and was undertaken as a pilot project. Following a successful trial, the Captain EOR Project has been developed in 2 stages. Stage 1 commenced in 2017 and comprised the drilling of 6 polymer injection wells and 4 production wells at the WPPA. Stage 2 has been split into 2 phases, and phase 1 consists of the bullet points as listed above. Please note there is also the drilling of a new production well, and the conversion of a subsea well, but these do not form part of this application.

A2Y Well Location

This well will be suspended, and 2 x 30m tie in spools and a 30m jumper will be removed from the seabed along with 9 mattresses and 150 x 25Kg grout bags. Recovery activities will include divers and the use of work baskets.

UB05P Well Location

The new production well will be tied into the existing manifold at Area C, and will

re-use the A2Y well slot and control system. Divers will tie in the tie-in spools (2 x 60m) and control jumper (80m). 20 mattresses and 1000 x 25Kg grout bags will be usedto support and protect the new infrastructure.

New Polymer Injection Flowline

The existing water injection well (B28 well) in Area B will be converted to a polymer injection well. A new 6.6" 5.5km flowline will be laid from BLPA platform to the manifold at Area B. The 5.5km flowline will follow the same route as the existing lines between the BLP'A' platform and the manifold.

The pipeline will be laid on the seabed, and it will be jet trenched to a target depth of 1m. Closer to the BLPA platform, the pipeline will transition fromthe trench and be surface laid in section with connecting spools protected by concrete mattress, with grout bags used to support the riser section of the new flowline and well B28 tie-in spools. The untrenched part of the pipeline will be contained within the BLP'A' platform and the manifold 500m safety zones.

The new pipeline will cross the existing Captain gas export pipeline, and mattresses will be used to protect the gas export line. After the new pipeline has been laid, 5000t of rock will be added at the crossing. A number of other pipeline crossings will be undertaken at approaches to the manifold and these crossings will comprise only mattresses as their location will be within the 500m safety zone.

A worst-case assessment has been included within the application, which has included 84 mattresses and 1250 x 25Kg grout bags, to stabilise/protect the end of the pipelines and to support the crossing of the gas export line. Additional rock (5000 t) may be required if the trench target depth does not reach 1m, or to prevent upheaval buckling.

Installation of new riser caisson

A new riser caisson will be installed on leg D of BLPA platform. The caisson will contain 10 pre-installed riser sections, however the flowlines attached to these will be installed in Stage 2 (phase 2) of the project. The riser caisson will be temporarily stored within the 500m safety zone of the platform. It will later be winched into place and installed by divers using pre-installed clamps. There will be seabed disturbance from the temporary store of the caisson.

Pre and post surveys will be undertaken, and all pipelines, rigid spools, umbilical and jumpers will be leak tested.

The project will use 6 vessels over the project, and include a fall pipe vessel, trenching vessel, heavy lift vessel, survey vessel, guard vessel and a vessel of A2Yand UB05P activities and the installation of the riser caisson.

The permanent seabed deposits of grout bags, mattresses and rock will impact an area of 0.012 km2. There will be temporary disturbance of the seabed due to the

jettrenching method (assuming a 20m corridor), the temporary storage of the riser caisson and the recovery of mattresses and grout bags. It is estimated that the temporary seabed disturbance is 0.113km2.

No cumulative interactions are foreseen with any other existing or approved projects. There is no risk to human health from the works to install the pipelines or depositing the protective materials on the seabed. There is no credible potential for a major accident or disaster to affect this project.

Any wastes associated with the project will be handled appropriately and no significant impacts are anticipated. The project is not at risk from natural disasters given its location in UK offshore waters.

Location of the Project

Having regard, in particular, to the matters identified at paragraphs 2(a) to (c) of

Schedule 5 to the Regulations, the environmental sensitivity of geographical areas

likely to be affected by the project has been considered as follows:-

The Captain field is located in the Outer Moray Firth area, approximately 191 km from the UK/Norwegian median line and 91km from the Scottish mainland. Survey data shows the sediments within the area to be indicative of a relatively homogenous sediment type comprising sand, with a lower fines content. There are small, localised areas of muddy sand, with pebbles, cobbles and boulders, but the main sediment type is sandy mud/muddy sand. Sediments range within the region and are classified as 'deep circalittoral mixed sediments' and 'deep circalittoral mud'. Seabed scars were observed within the survey area, however these were found to be trawl scars, and from relic anchoring activities and small pull out scars.

Mean water depth ranges from 96.5m in the west to 124.1m in the east of the area. Water depth at Area C location is 115m, Area B is 109m and BLPA is 100m. Average wave height is 1.9m.

A survey of the area showed that epibenthic fauna was relatively sparse. The dominant epifanua were sea pens, with other species observed including Norway Lobster, starfish, brittle stars, polychaetes and gastropods. Various species of sea pen were recorded at all survey stations, with an abundance ranging from occasional to frequent and common to abundant. Burrows created by the Norway lobster also ranged from common to abundant. A SACFOR assessment for sea pens and burrowing megafauna concluded that the Captain area would be considered to represent the OSPAR habitat 'Sea pens and burrowing megafauna communities'. The sediments within the area also fall within the broaddefinitionof 'subtidal sands and gravels', which is a priority habitat in UK waters.

There was no evidence of the presence of the ocean quahog from the stills of video footage but there was evidence of its' shells in the grab samples taken. No other

Annex I habitats were found in the area.

Minke whale, long finned pilot whale, killer whale, bottlenose dolphin, white beaked dolphin, Atlantic white-sided dolphin and harbour porpoise have all been recorded in the vicinity of the Captain area. Densities of the species are categorised as low to moderate, with the exception of the white beaked dolphin which is high in August and December and the harbour porpoise which is high in July. Grey and harbour seals may be encountered, and density maps show the presence of grey and harbour seals in the area of the project area as 5-10 individuals per 5 km2.

The Captain area is not situated within any conservation areas, with the nearest area of conservation interest being the Southern Trench NCMPA which lies 47km to the south. This site is protected due to a variety of biodiversity and geological features including burrowed mud, sub-glacial tunnels and minke whale.

The Captain field lies within fishing designated ICES rectangle 45E8 and the proposed operations will coincide with fish spawning and/or nursery activity for a number of species. Fishing effort in the area is designated as of moderate importance, with pelagic fishing dominating the species type. Fishing in the area accounted for 1.5% (by weight) of UK landings and 1.4% (by value) of total UK landings in 2020. It is not anticipated that the laying of the subsea infrastructure for Phase 1 of the Captain EOR Stage II project will have a significant impact on fishing.

Seabird oil sensitivity in the vicinity of the Captain field is high from April - June, low in the summer months and increases to medium sensitivity towards the end of the year.

There are a number of wrecks within the area of the new pipeline infrastructure, the closest being 0.9km from the end of the new polymer injection pipeline. Another wreck was identified between Area B and BLP'A' platform. A pre-lay route survey will be carried out to establish the location of the wreckrelative to the proposed laydown of the polymer injection flowline. The closest wind farm to the proposed project is the NE6 windfarm, which is 7km northeast of the pipeline location. The closest active cable (KIS-ORCA) is located 44km from block 13/22 and there are no aquaculture sites or shellfish protected areas within the vicinity of the project area. There are no military restrictions within the block, and the nearest MoD practice and exercise area is 6km to the west of the project location. Shipping density with the area is low, with an average of 6 vessels per day within Block 13/22. An FPSO is the closest surface oil and gas installation, at 27km southeast of the proposed project. It is not anticipated that the proposed project will have a significant impact on either the wrecks, cables or windfarms.

It is not anticipated that the proposed project will have a significant impact on either the wrecks, offshore wind installation or cables.

Given the location of the project, it is not likely that the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) of Schedule 5 to the Regulations will be affected by the change to the project.

Type and characteristics of the potential impact

In accordance with paragraph 3 of Schedule 5 to the Regulations, the likely significant effects of the change to the project on the environment have been considered. Potential effects on the environment from the activities associated with the project were assessed, including impacts arising from atmospheric emissions, seabed disturbance, physical presence, planned discharges and accidental spills. Other than the matters considered further below, there is not likely to be any significant impact from the change to the project on population and human health.

There is currently a 500 m radius safety zone around the existing BLP'A' platform and Area's B and C, which already excludes unauthorised access of vessels and prohibits access to fishing vessels. Some of the infrastructure installation will be carried out within these 500m safety zones. The remaining works that is outwith any 500m safety zone is the polymer injection flowline, which will be jet trenched to a sufficient depth to prevent interference with other users of the sea (demersal fishing). The crossing of the new polymer line with the existing gas export line will comprise of mattresses and rock cover and these will be profiled to be fishing friendly. Any rock that is used as contingency will have a trawlable profile. There may be a time lapse between the laying of mattresses at the crossing of the new polymer flowline with the gas export line and completing of trenching, therefore a guard vessel will be on location to minimise the risk of other users of the sea from the new infrastructure. There should therefore be no likely significant effects in terms of physical presence from the project.

Seabed disturbance will occur from the jet trenching of the polymer injection pipeline, the surface laying of tie-in spools and jumpers, and the introduction of the protection materials. The disturbance of the seabed by adding the protective materials, will result in the smothering, crushing and mortality of benthic fauna. The introduction of hard surface substrate to the area will have a direct impact on the benthic communities, with the natural habitat and communities lost. This will be a permanent habitat change. Jet trenching will also contribute to the mortality of the benthic community as this will increase the turbidity in the water column which can cause issues for filter feeding organisms.

The effects of jet trenching are understood to be temporary, and the recolonisation of the area commences when the trenching is completed. There will be, particularly for sea pens and burrowing megafaunatemporary impacts. Burrowed mud habitats show a medium sensitivity to abrasion/penetration which may be caused by the project activities. Sea pen have been shown to re-anchor themselves after disturbance and can be resilient. Ocean Quahog are sensitive to increased siltation and can bury into the sediment when disturbed as long as their inhalant siphon is not damaged. Ocean quahog have a short life span and a high reproduction rate, and given the small area of seabed affected, it is not thought that the project activities will impact on the population of the species. Given the above, it is expected that the benthic communities will regenerate in the area over time. It is anticipatedthat the new infrastructure will create a new habitat for benthic organisms, such as sponges, soft

corals and brittle stars.

The subsea activities to remove and install tie-in spools and jumpers around wells A2Y, B28 and UB05P could potentially disturb theWater Based Mud (WBM) cuttings piles.The cuttings piles will be aged and new (from UB05P). It is likely that there may be some chemical additives remaining within the aged drill cuttings, which if disturbed, could be redistributed within the water column. However, it is understood that WBM used in the drilling operations are unlikely to have a significant effect on the surrounding marine habitat. Chemically inert materials used within the WBM such as Barium,is chemically inert and trace metals associated with the WBM arebiologically unavailable to any benthic fauna. Therefore, the redistribution of WBMand chemically unavailable (inert) metals, are unlikely to have an effect on the benthic communities in the area.

The installation activities will generate underwater noise through vessel engine use, however temporary vessel traffic is not expected to cause disturbance to marine mammals. Given the short duration of the project, noise associated with vessel use is not considered likely to have a significant impact.

There are no expected transboundary effects from the proposed project, as discharges to the marine environment and atmospheric emissions will be localised and dispersed rapidly.

The main risk of accidental release of hydrocarbons is resulting from a loss of diesel inventory from a vessel or the impacts of a dropped object within the 500m zone of the Captain BLP'A' platform. The assessment showed that the probability of a diesel spill from a vessel involved in the project is very low, with numerous mitigation measures and procedures in place. The assessment also showed that a dropped object scenario will not result in a major environmental incident (MEI). Therefore, the risk of an oil spill event that could have a significant impact on the environment is low.

The proposed operation will utilise six vessels, and atmospheric emissions have been assessed from the diesel used for each vessel, and the time spent on location. The total atmospheric emissions from the vessels undertaking the project work, accounts for 0.065% of the total UKCS CO2 emissions (using 2018 as a baseline). The emissions may result in a deterioration of the local air quality, but due to the relatively short duration of the work, and that the exposed conditions in the area will rapidly disperse the emissions, it is not anticipated that there will be a significant impact.

2) Decision

Taking the above considerations into account, the Secretary of State has concluded that the project is not likely to have a significant impact on the environment and that an environmental impact assessment is not required.

3) Mitigation of significant effects

The following are features of the project or measures envisaged that the developer has proposed to avoid or prevent what might otherwise have been significant adverse effects on the environment:

n/a