

Our Ref: 01.01.01.01-5709U
UKOP Doc Ref:1285915



Offshore Petroleum Regulator
for Environment & Decommissioning

DANA PETROLEUM (E&P) LIMITED
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LONDON
EC4N 6AF

Registered No.: 02294746

Date: 14th July 2023

Department for Energy Security &
Net Zero

AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]

Fax

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OPRED@Energysecurity.gov.uk

Dear Sir / Madam

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

BITTERN WATER INJECTION PIPELINE PL1650

A screening direction for the project detailed in your application, reference PL/2381/0 (Version 2), dated 11th July 2023 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 OPRED@Energysecurity.gov.uk.

Yours faithfully

[REDACTED]



**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**

BITTERN WATER INJECTION PIPELINE PL1650

PL/2381/0 (Version 2)

Whereas DANA PETROLEUM (E&P) LIMITED has made an application dated 11th July 2023, 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 application, PA/4666.

Effective Date: 14th July 2023



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

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 15 July 2023 until 30 June 2024.

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: OPRD@Energysecurity.gov.uk

3 Nature of stabilisation or protection materials

Grout bags deposits

66 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

14 concrete mattresses, each measuring 6 metres x 3 metres x 30 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:

Longitude 56 59 44.40 N

Latitude 00 57 36.27 E

and

Longitude 56 59 42.27 N

Latitude 00 57 37.98 E



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:

OPRED@Energysecurity.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Energy Security & Net Zero
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]

SCHEDULE OF SCREENING DIRECTION DECISION REASONS

Remediation of span on Bittern Field water injection pipeline (PL1650) and piggybacked gas injection pipeline PL1649

Dana Petroleum (E&P Limited)

This provides a summary of the assessments undertaken by OPRED (Offshore Petroleum Regulator for Environment and Decommissioning) to determine whether an Environmental Impact Assessment is required for this project. It 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 Regulations 2020) (The Regulations).
- c) The results of any preliminary verifications 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 in Schedule 5 1(a) to (g) of the Regulations, the characteristics of the project include the following:

Summary of project

Repair works of the Bittern 12" Water Injection (WI) pipeline (PL 1650) following temporary remedial works undertaken in November 2022. The 4" gas lift pipeline PL 1649 is piggy-backed onto PL 1650 and therefore is also associated with this application. The 12" WI line is currently out of service and as such, Dana plan to get this pipeline back in service by installing a bespoke sealing clamp and crack arrestors at the rupture location and carry out post installation testing of the pipeline. Dana also proposes to place various deposits in the area to support the newly installed sealing clamp and crack arrestors in order to provide further support to these subsea structures and protection.

Description of project



The water injection pipeline (PL1650) and gas lift pipeline (PL1649) were trenched and buried when laid in the Bittern field. They connect Triton Floating Production, Storage and Offloading (FPSO) water injection riser base in UK continental shelf (UKCS) block 21/30 to Bittern field Drill Centre B manifold (DCB) in block 29/1, 22km apart. The remediated rupture is at the base of the water injection line, located in block 28/5, 10km from the FPSO water injection riser base. The 12" WI pipeline is still currently out of service however the piggy-backed gas lift line was returned to service. As such, Dana plan to get the 12" WI pipeline (PL1650) back in service by installing a bespoke sealing clamp and crack arrestors at the rupture location and to carry out post installation testing of the pipeline. Dana also proposes to place various deposits in the area to support the newly installed sealing clamp and crack arrestors in order to provide further support to these subsea structures and protection.

The Subsea 7 Atlantic DSV which will utilise DP to install the bespoke sealing clamp and crack arrestors to span the rupture. Topside and subsea isolations will be put in place for arrival in the field. Prior to the bespoke sealing clamp and crack arrestors being installed, the 4" gas lift pipeline will be diverted to allow clearance, and the 12" WI pipeline will be "cleaned" (i.e., the pipeline coating will be removed) on the outside diameter around the rupture location to create a suitable sealing surface.

Excavation will be carried out to expose the 4" gas lift pipeline either side of the 12" WI pipeline fault location (maximum 12 m either side). This will allow the piggy-back clamps to be removed and 4" gas lift pipeline deflected for clamp installation. The excavation will be carried out by a Remotely Operated Vehicle (ROV) and/ or diver operated dredger. As such, as a worst-case it is expected that no more than 100 m³ of sediment will be excavated.

The bespoke sealing clamp will be deployed using the Subsea 7 Atlantic DSV crane and installed on to the 12" WI pipeline by divers. Once installed the 12" WI pipeline will be tested and commissioned for return to service. The 4" gas lift pipeline will be re-secured on to the 12" WI pipeline thereafter. The clamp is a split body, dual seal type with double barriers designed to DNV-RP-113. The design pressure of the bespoke sealing clamp is 150 bar. The crack arrestors are split collar design and anodes are fitted to the clamp and crack arrestors for cathodic protection in line with DNV-RP-B401.

On completion of the installation, the 12" WI pipeline and 4" gas lift pipeline and clamp will be supported with 2640 x 25kg grout bags and protected using 14 concrete mattresses (6m x 3m x 0.3m).

No cumulative impacts are expected to occur with any other existing or approved Projects.

It is not considered to be likely that the project will be affected by natural disasters or unplanned major accident scenarios and there is no risk to human health. Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.



Location of the project

Having regard, in particular, to the matters identified in Schedule 5 2(a) to (c) of the Regulations, the environmental sensitivity of geographical areas likely to be affected by the project has been considered as follows.

The project is located in the Bittern field development area. This consists of subsea wells tying production back to Triton Floating Production Storage and Offloading (FPSO) vessel operated by Dana Petroleum (E&P) Limited (Dana). The Bittern water injection line PL1650 and piggy-backed gas lift line PL1649) run between the water injection riser base at Triton FPSO located in UKCS quadrant/block 21/30, 166km from the UK coast and 86km from the UK/median line with Norway and the Bittern field drill centre B (DCB) manifold located in block 29/1, approximately 20km in length. The rupture is 10km from the Triton FPSO water injection riser base in UKCS block 28/5 in the central North Sea (CNS).

The project area is not located within any protected areas. The Scanner Pockmark Special Protected Area (SAC) is approximately 141 km to the north. There was no evidence of Annex I habitats of submarine structures made by leaking gases or reef. The closest offshore Nature Conservation Marine Protected Area (NC MPA) to the proposed operations is the East of Gannet and Montrose NC MPA, located approximately 10.6 km to the north east, designated for OSPAR listed as threatened and/ or in decline ocean quahog aggregations (including sands and gravels as their supporting habitat as well as offshore deep sea mud habitat supporting diverse species including sea urchins, sea cucumbers, worms and molluscs. The 2015 survey found the OSPAR listed as threatened and/ or in decline ocean quahog in the Greater Guillemot Area at the majority of stations but in low numbers and as juveniles but none were found during the Bittern 2018 survey. Quahog can withdraw their siphons and be difficult to observe at the surface so may be present. No evidence of Annex I habitats or communities of conservation value were found during this survey. Sea pen were recorded as common or frequent, but it was not clear what fauna created the burrows. In the absence of survey evidence, it is assumed, worst case that the PMF habitat 'burrowed mud' and biotope 'sea pen and burrowing megafauna in circalittoral fine mud', OSPAR listed as threatened and or in decline habitat 'sea pen and burrowing megafauna communities' is assumed to be present.

Recent environmental baseline survey data (2015) of the Greater Guillemot Area, recorded water depth at the site of 96m, average residual current of 0.1m/s and spring tide peak flow of 0.01 m/s in open water. Winds prevail from the southwest and NNE, exceeding 8m/s during the majority of winter and more variable speeds in summer.

Sand and slightly gravelly sand cover most of the central North Sea which can have significant mud content classified 'muddy sand' (National Marine Plan interactive) and classed broadly as 'Offshore circalittoral sand' (EUNIS) with 'circalittoral mixed sediment' with shell debris and cobbles. Bittern survey area is classed as 'circalittoral sandy mud' and 'offshore subtidal sands and gravels', a Priority Marine Feature



(PMF) occurs at Bittern field. The 2015 survey identified fine sand and very fine sand with a subsequent survey done in 2018 confirming mud or sandy mud at Bittern, backed up by cohesive muddy sediment with faunal tracks and burrows observed on recent imaging at the site.

The 2015 survey in the Greater Guillemot Area identified 240 species, broadly similar to benthic species in the wider region with 50% of the species being polychaetes and brittle star, molluscs, seapen (*Pennatula phosphorea* and *Virgularia mirabilis* observed), white curved tubes of *Ditropa* species (a serpulid polychaete) and star fish at a few survey stations which aligned with previous survey results in 2005. Bittern survey results confirmed hermit crab, starfish, scallops, swimming crab and nudibranch with burrowing Norway lobster and shell debris, enabling attachment of hydroid/ bryozoan turf, sea squirt, anemone and sponge Porifera.

Pelagic fish observed include flat and hagfish, dragonets and ray. The proposed project is located in International Council for the Exploration of the Sea (ICES) Rectangle 42F0 with several spawning and nursery species. PMF of note include anglerfish, blue whiting, cod, mackerel, sandeel, Norway pout, spurdog and whiting, cod also being OSPAR listed. Sandeel spawn in November and are unlikely to be present due to the silt and clay content of sediment at Bittern.

Fisheries mostly targeted shellfish between 2019 and 2021 with the highest landings weight and value, but overall effort is small in a UK context and low during the proposed project period with trawl gear dominating.

Harbour porpoise and white beaked dolphin are frequently encountered year-round. Additionally Atlantic white-sided, white-beaked, bottlenose and common dolphin and Minke whale have been observed in the vicinity of the proposed operations in low density throughout the year. All species are listed as PMF and species of national importance (European protected species). Grey and harbour seals are unlikely to be encountered regularly at the project site. The seal species and harbour porpoise are Annex II listed species.

Outside the seabird breeding season at the coast which ends around June, birds disperse offshore. Seabirds present in the project area during the proposed development are likely to include northern fulmar, northern gannet, great skua, black headed kittiwake, species of gull (black backed, great black backed, lesser great black backed, herring) common guillemot, razorbill, little auk and Atlantic puffin some of which have been subject to declines in numbers. Seabird sensitivity to accidental spill is recorded as low in block 28/05.

There are four oil and gas installations within 40km of the site, low shipping intensity, no military restrictions, the nearest cable located some distance from the site, the North Sea Link Interconnector South and no observed wrecks.

Given the location of the project, it is not likely that the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) or (viii) of Schedule 5 to the Regulations will be affected by 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 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, physical presence, seabed disturbance, underwater noise and accidental spills.

Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.

Atmospheric emissions will arise from the Subsea 7 Atlantic during the proposed operations. The vessel will be onsite for 10 days and contribute to 0.003% of the total atmospheric emissions associated with UK offshore activities in a year. Assessment indicates that the project will generate a minimal proportion of shipping and UKCS oil and gas emissions which will rapidly disperse offshore. Vessel emissions will be minimised, optimising deployment, compliance with MARPOL emissions standards and other shipping requirements with no likely significant effect on air quality.

An area of 84m² of seabed was lost when PL1650 was ruptured which may have impacted, if present Norway lobster, the PMF 'burrowed mud', OSPAR listed habitat 'seapens and burrowing megafauna communities' and ocean quahog. The grout bags and concrete mattresses are assumed to be within the area of the crater and as such the maximum possible seabed disturbance area is equal to the size of the crater, temporary relocation of grout bags and excavation, ie 264.8m².

The vessel has dynamically positioned (DP) thrusters. DP's generate peak noise levels in the low frequency range. This can result in behavioural change such as masking in the immediate vicinity of a vessel. A low density of cetaceans is found in the area with infrequent visits by seals. Cetaceans show natural avoidance behaviour and are not considered to be adversely affected by the proposed operations. Noise impacts are therefore not considered to be significant.

Although not a planned activity, an unplanned release of diesel from the vessel was assessed. The developer has mitigation and control measures in place to prevent this. The proposed operations carried out as planned are not likely to have a significant effect on the environment and the probability of an unplanned release from the proposed operations is low.

There is no planned construction operations, other activities or sites of marine archaeological interests in the vicinity of the proposed operations.

No objections were received from the consultees for the proposed operations. It is considered that the proposed operations to reinstate the Bittern water injection pipeline is not likely to have a significant impact. There will be no impact cumulatively with other activities or other users of the sea and no cumulative or transboundary impacts are expected to occur. The proposal aligns with the policies in the National



Marine Plan.

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.

2) 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:

Not Applicable