

Our Ref: 01.01.01.01-5234U
UKOP Doc Ref:1250910



Offshore Petroleum Regulator
for Environment & Decommissioning

CNOOC PETROLEUM EUROPE LIMITED
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Registered No.: 01051137

Date: 13th January 2023

Department for Business, Energy
& Industrial Strategy

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Crimon Place
Aberdeen
AB10 1BJ

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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**

**GOLDEN EAGLE, COSInnovator DRILLING PRODUCER WELL 14/26a-NDPF
planned well**

I refer to your amended application dated 13th January 2023, reference DR/2278/1 (Version 1).

It has been determined that the proposed changes to the project is not likely to result in a significant effect on the environment, and therefore an environmental impact assessment is not required.

A screening direction is therefore issued for the changes to the project. An amended schedule of conditions, comments, and main reasons for the decision on the amended application, 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



**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**

**GOLDEN EAGLE, COSLInnovator DRILLING PRODUCER WELL 14/26a-NDPF
planned well**

DR/2278/1 (Version 1)

Whereas CNOOC PETROLEUM EUROPE LIMITED has made an application dated 13th January 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, WONS/14460/GS/1.

Effective Date: 13th January 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 12 August 2022 until 30 June 2023.

2 Commencement and completion of the project

The holder of the screening direction must notify the Department for Business, Energy & Industrial Strategy (hereinafter called the 'Department') of commencement and completion of the project within two days:

- a) of commencement of the project and
- b) of completion of the project.

Notification should be sent by email to the Environmental Management Team Mailbox: bst@beis.gov.uk

3 Nature of stabilisation or protection materials

4 concrete gravity bases tethered to the BOP. Each base has an area of impact of 20.625m², with a total impact area on the seabed of 82.5m²

4 Location of stabilisation or protection materials

As per the information provided with the EAJ document.

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, extended well test emissions or flaring and venting emissions relating to a well test, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms. In the case of atmospheric emissions relating to drilling projects undertaken from a fixed installation, they should be included in the annual EEMS reporting forms for the fixed installation.

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]
Fax



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 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

This post screening direction amendment (ref: DR/2278/1) relates to a change to the project for which a screening direction was previously issued.

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

A contingency sidetrack well, which was assessed in the original screening direction for DPF/DPG wells, has been undertaken due to the drilling section not reaching target depth. The sidetrack well (DPG) will include a mechanical sidetrack which was not included in the original screening application. A short mechanical sidetrack is proposed which will then continue on the path of drilling as per the original screening direction. As a result of this mechanical sidetrack, the 12 " pilot hole will be redrilled, with additional mud and cuttings produced. The additional drill muds and cuttings will be skipped and shipped to shore as per the other OBM cuttings which were assessed in the original application. There will be no additional discharge to the marine environment as result of the mechanical sidetrack.

Description of Project

The original screening direction (DR/2278/0) included the following:



Drilling of a new production well (DPF), which will be drilled using the COSL Innovator semi-submersible drilling rig. The rig will be located at the Golden Eagle Northern Drill Centre (NDC), and will be partially located within the existing 500m safety zone.

The well will be spudded with a 42" x 36" x 26" hole using seawater and sweeps. The 17" section will be drilled using Water Based Mud (WBM) whilst the 12" and 8" x 8" sections will be drilled using Oil Based Mud (OBM).

Drilling will utilise a riser-less mud recovery system. This closed looped system ensures there is no discharge of OBM mud and cuttings.

In the event that the target is unsuccessful, a contingency side-track (called well DPG) will be drilled. This has been assessed as part of the application, and will include a 12" pilot hole, a 12" section, and an 8" x 8" section.

The assessment includes the completion phase of the project, and there will be no extended well tests or vertical seismic profiling required.

The Golden Eagle, Peregrine and Solitare fields are part of the Golden Eagle Area Development (GEAD) and tie back to a Wellhead platform, and production, utility and quarters (PUQ) platform, connected by a bridge. The PUQ platform processes hydrocarbon fluids, with oil exported into the Flotta Pipeline System and gas exported to the SAGE pipeline. There are 2 satellite drill centres, the Northern Drill Centre and the Southern Drill Centre.

Well DPF will be drilled from a semi-submersible drilling rig from Golden Eagle's Northern Drill Centre (NDC). WBM will be discharged overboard to the marine environment along with the cuttings. There will be no discharge of OBM from the operation. Contingency sidetracks have been included for the well to allow for a worst-case drilling scenario to be assessed (sidetrack well DPG). Well DPF will be drilled within the already established 500m safety zone which surrounds the NDC. Operations are expected to last 82 days. The proposed project area is within a well-developed area of the Central North Sea and cumulative impacts from drilling discharges atmospheric releases and oil and chemical releases have been assessed.

It has been concluded that there will be no cumulative impacts expected to occur with this change to the project due to the selection of low bioaccumulation water-based muds, no discharge of OBM, the proposed mitigation and the short duration of the project.

It is not considered to be likely that the change to the project will be affected by natural disasters and the risk of a major accident such as a well blowout has been assessed. The Developer has control measures in place to reduce the risk of a major accident occurring and the probability of such an event occurring is very low.

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.

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 DPF well is located in the Golden Eagle field which is located in Block 14/26a, approximately 70 kilometres (km) from the Scottish coast of the UK and 159 km from the UK/Norway median line, in an approximate water depth of 116 metres (m).

The sediment in the area is composed of muddy sand with surveys in the area confirming this assessment.

Recent seabed photography and video footage showed that visible fauna was low but with frequent evidence of burrowing animals. Observed fauna included sea stars, hermit crabs, sea anemone and seapens. Seapens were observed at every sample station, and using the SACFOR scale, burrow densities were classified as rare to frequent, and occasional to common throughout the sample stations. It is therefore considered that the OSPAR listed habitat of 'seapens and burrowing megafauna communities' is present. Juvenile ocean quahog is on OSPAR's (2008) list of threatened and/or declining species and habitats and is listed as a low or limited mobility species under Scotland's Priority Marine Feature (PMF). This species was recorded at each sample station, and it was concluded that the species is commonly found within the Golden Eagle area. Pockmarks found in the area shows no evidence of MDAC features and no annex I submarine structures made by leaking gases were found.

There are no conservation areas within 40km of the DPF well. The Southern Trench Nature Conservation Marine Protected Area (NCMPA), is the closest site at 47km to the southwest, which is protected for minke whale, burrowed muds and subglacial tunnels and valleys. The Scanner Pockmark SAC is located 114km to the northeast and is designated to the Annex 1 habitat 'submarine strictures made by leaking gases'.

The field falls within International Council of the Sea (ICES) rectangle 45E9, and fishing effort is dominated by shellfish and demersal species. This area contributes to 0.35% of UK landings and 0.63% of value when compared to overall UKCS fishing. Fish spawning for a number of species occurs in ICES rectangle 45E9, and it is also a nursery area for a number of fish species throughout the year. Several species are Scottish Priority Marine Features. It is not anticipated that the drilling of well DPF will have a significant impact on the fishing industry in the area.

Seabird oil sensitivity in the vicinity of the Golden Eagle field is high in January, very high in October and November, and low to medium for the remaining months.

Harbour porpoise, minke whale, white-beaked dolphin, atlantic white-sided dolphin and Risso's dolphin have all been sighted in the area throughout the year. All of these species are found in low to moderate densities, with the exception of minke whale which is found in high densities in May and June, and high densities of white beaked



dolphin in June. Grey and harbour seals are not frequently sighted within the area, with individual densities of grey seals ranging from 0 -10 individuals per 25km², while harbour seals are not expected within the area.

The project location is not within a military activity zone, with the nearest telecommunications cable (Tampnet CNS fibre optic) located 49km to the south the well. The Noth Connect Cable is due to begin construction and is routed 22km to the south of the Golden Eagle field. The closest windfarm is the Hywind floating offshore windfarm located 62km to the southwest. A number of offshore wind farm lease areas are located within the area, with the closest ones being awarded to Scottish Power Renewables (1.7 km northeast) and Falck Renewables Wind (22 km northwest) of the well. DPF is also located approximately 7 km southeast of the Innovation and Targeted Oil and Gas Decarbonisation (INTOG) area E-b.

There are 48 wrecks within 40km of the well. The closest wreck is 6km to the southeast. None all wrecks are non-dangerous and there are no known wrecks of historical importance. The closest aquaculture site is 100km to the southwest of the Golden Eagle platform.

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 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 of the atmospheric emissions on the environment from the activities associated with the project were assessed. 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.

The drilling rig will be sited within the existing 500m exclusion zone for the Northern Drilling Centre, and the drilling rig will be subject to its own temporary 500m exclusion zone. The rig anchors will extend beyond this 500m zone, and the anchors will be marked with buoys. The BOP will require to be tethered, but this will not extend outwith the 500m exclusion zone. Fishing activities within the area are low, and no additional impacts to other marine users are identified as part of the drilling of well DPF. Therefore, there are no significant effects likely in terms of physical presence from the proposed project.

Cuttings from the WBM sections will be discharged at the seabed and overboard from the drilling rig and into the water column. Cuttings dispersion modelling was undertaken as part of the Buzzard Phase II (BP II) drilling project, and the results were assessed as part of this application. The sediments at Golden Eagle are similar to the Buzzard field, DPF well is 22km from the Buzzard platform, and it is recognised that environmental conditions are similar. The BP II model included 12 wells spread across 2 locations, with 3000t of WBM discharged. The DPF well is a single well with the potential to discharge 736t of WBM cuttings. The BP II modelling assessment



concluded that the cuttings pile would peak at 2m and rapidly diminish to <6.5mm within 480m of the well. For this well, which has a cuttings weight of less than that modelled, it is estimated that siltation would be very localised to the well site.

Seabed disturbance from the discharge of WBM drill cuttings could result in the smothering and mortality of benthic fauna which will result in some short-term temporary impacts. Ocean quahog are sensitive to increased siltation above 30cm, and it is predicted that this smothering may cause some mortality to ocean quahog who are present in the area. The proposed drilling period coincides with the spawning period for cod, herring, lemon sole, Norway lobster, Norway pout, sandeel, sprat and whiting. It is regarded that spawning grounds are of higher sensitivities to oil and gas activities than nursery grounds, however many species spawn into the water column over large areas, and so it is unlikely that that these will be significantly impacted by the drilling operations. The sea pen and burrowed mud habitats are also likely to be more sensitive to smothering above 30cm. Burrowed mud habitats are also used by the Norway Lobster, which are considered likely to spawn within the vicinity of the DPF well. It has however been shown that the Norway Lobster are tolerant to smothering and have been assessed as not sensitive to an increase in suspended sediment. Seapens demonstrate high resistance and resilience to smothering but an increase in suspended sediment may affect their feeding efficiency. Studies have however shown that seapens can recover quickly from the effects of smothering. Given the small area of impact and the discharge of the WBM to the water column, there is the potential for mortality of individual ocean quahog if present in the area, and the potential to effect sea pens and burrowing megafauna. However, it is not expected to affect the population levels across the North sea and it is expected that the benthic communities will regenerate in the area over time.

Further seabed disturbance will occur from the anchor deployment, anchor chains for the drilling rig and from the BOP tethers/gravity bases. The BOP will be tethered to the seabed by 4 concrete gravity bases. The total area of seabed disturbance is 0.0965 km². As the sediments within the area are comprised of muddy sand and sandy mud, it is unlikely that the impact on the seabed will be permanent, with no long-term impacts predicted. There will be mortality of some individual species, as discussed above, but the impact on populations levels across the North Sea is unlikely to be significant.

Noise generated from the project activities will not be significant, and it is concluded that the change to the project is not expected to have a likely significant effect on the site in relation to harbour porpoise and the supporting habitats and prey.

There are no expected transboundary effects from the proposal to drill DPF well. The nearest boundary (UK/Norwegian median) is located approximately 149 km from the proposed well location. It is not considered likely that any planned operational discharge (cuttings and chemicals) will be detectable at this distance from the well location.

The well to be drilled is a production well, and an assessment has been included within the project proposal to assess as a worst case, a well blow out within the



Golden Eagle field, and the subsequent potential for a Major Environmental Incident (MEI). The assessment concluded that there is a potential for an MEI to occur, however the risk of an oil spill event as a result of a well blow out from well DPF is minimal, and the developer has suitable mitigation in place to prevent such an occurrence.

The proposed operation will utilise 2 anchor handling vessels and an emergency rescue and response vessel (ERRV) along with 5 flights per week to/from the drilling rig for personnel. Atmospheric emissions have been assessed from the diesel used for each vessel (including the drilling rig itself) and the time spent on location. The total atmospheric emissions from the vessels undertaking the project work, accounts for 0.09% 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.

Decision

Taking the above considerations into account, the Secretary of State has concluded that the change to 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.