

Our Ref: 01.01.01.01-5841U
UKOP Doc Ref:1304405



Offshore Petroleum Regulator
for Environment & Decommissioning

CNOOC PETROLEUM EUROPE LIMITED
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Registered No.: 01051137

Date: 1st November 2023

Department for Energy Security &
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Crimon Place
Aberdeen
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Dear Sir / Madam

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

**GOLDEN EAGLE, Shelf Drilling Fortress DRILLING PRODUCER WELL
20/01a-G20/01-HPG planned well**

A screening direction for the project detailed in your application, reference DR/2425/0 (Version 1), dated 29th September 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



**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, Shelf Drilling Fortress DRILLING PRODUCER WELL
20/01a-G20/01-HPG planned well**

DR/2425/0 (Version 1)

Whereas CNOOC PETROLEUM EUROPE LIMITED has made an application dated 29th September 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/15898/0/IDA/1, WONS/16026/0/C/1 and WONS/16001/0/GS/1.

Effective Date: 1st November 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 10 November 2023 until 29 February 2024.

2 Commencement and completion of the project

The holder of the screening direction must notify the Department for Energy Security & Net Zero (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: opred@energysecurity.gov.uk

3 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.

4 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.

5 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.

6 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.

7 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).

8 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]
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

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. Drilling of a new oil and gas production well (HPG), which will be drilled using the Shelf Drilling Fortress heavy duty jack up (HDJU). The rig will be located at the Golden Eagle Platform and will be located within the platform's existing 500m exclusion zone. The anchors for the HDJU will extend to outside the 500m exclusion zone;
- b. The project is expected to last 72 days, but has been extended within the application to account for weather and/or unforeseen operational delays;
- c. The well will be drilled in 4 sections. 3 sections (16", 12 " and 8 ") will be drilled using Oil Based Mud (OBM), with the cuttings and OBM treated in a Thermo-mechanical Cuttings Cleaner (TCC) unit. This means that there will be no OBM discharged to the marine environment. The 22" section will be drilled with Water Based Mud (WBM) which will be discharged from the HDJU into the marine environment. The top hole section will be drilled with seawater and sweeps, with mud and cuttings discharged to the seabed.
- d. A contingency sidetrack well has been accounted for in the application, which contains 3 sections (16", 12 " and 8 ") which will be drilled with OBM with the cuttings and OBM treated via the TCC unit (as above).
- e. In the event that the TCC unit is non-operational, the OBM cuttings will be skipped



and shipped to shore, with no discharge to the environment.

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

Description of project

The Golden Eagle, Peregrine and Solitaire 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 HPG will be drilled from a HDJU from the Golden Eagle's platform. There will be no discharge of OBM from the operation. The well will be drilled within the already established 500m safety zone which surrounds the Golden Eagle platform and operations are expected to last 72 days. The proposed project area is within a well-developed area of the Central North Sea and cumulative impacts from 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 project due to there being no discharge of OBM, the proposed mitigation and the short duration of the project.

It is not considered to be likely that 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 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 HPG well is located in the Golden Eagle field which is located in Block 20/01, approximately 68 kilometres (km) from the Scottish coast and 151 km from the UK/Norway median line, in an approximate water depth of 106 metres (m). The wave height within the field ranges from 2.11 -2.4m.

The sediment in the area is dominated by sand with a patch of muddy sand in the north of the block. Numerous pockmarks and depression are evident within the Golden Eagle field, however there was no evidence within the recent surveys for the presence of the Annex I habitat 'submarine structures made by leaking gases'.



Recent surveys showed that seabed photography and video footage showed that visible fauna included an abundance of polychaeta, crustacea, and molluscs. Seapens were observed at multiple sample stations and transects, and using the SACFOR scale, total seapen densities were classed as 'frequent'. Burrows were also recorded at all stations and were classified from 'rare' to 'common' at multiple survey stations. It is therefore concluded that the OSPAR listed habitat of 'seapens and burrowing megafauna communities' together with Scottish Priority Marine Feature (PMF) 'burrowed mud' and the Scottish biodiversity list habitat 'mud habitats in deep water' are present. 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 juvenile species was recorded at each sample station, and it was concluded that the species is commonly found within the Golden Eagle area.

There are no conservation areas within 40km of the HPG well. The Southern Trench Nature Conservation Marine Protected Area (NCMPA) is the closest site at 44km to the southwest, which is protected for minke whale, burrowed muds and subglacial tunnels and valleys. The Scanner Pockmark SAC is located 117km to the northeast and is designated for the Annex I habitat 'submarine strictures made by leaking gases'.

The field falls within International Council of the Sea (ICES) rectangle 44E9, and fishing effort is dominated by shellfish and demersal species. This area contributes to 1.11% of the total fishing effort in the UK, and accounts for 0.59% of value when compared to overall UKCS fishing in 2021. Fish spawning for a number of species occurs in ICES rectangle 44E9, 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 HPG will have a significant impact on the fishing industry in the area.

Seabird oil sensitivity in the vicinity of the Golden Eagle field is very high in October and November, high in December, January and July, and low 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 the white beaked dolphin which is found in high densities in June. Grey and harbour seals are not frequently sighted within the area due to the distance from shore (68km). Individual densities of grey seals range from 5 -10 individuals per 25km², while harbour seals densities range from 0-1 individuals per 25km².

The project location is not within a military activity zone, with the nearest telecommunications cable (Tampnet CNS fibre optic) located 44km to the southeast of the platform. The Noth Connect Cable is due to begin construction in 2023 and is routed 22km to the south of the Golden Eagle field. The closest windfarm is the



Hywind floating offshore windfarm located 57km to the southwest. A number of offshore wind farm lease areas are located within the area, with the closest one being awarded to Marramwind Limited (10 km northeast of HPG well). HPG well is also located approximately 7 km northwest of the Innovation and Targeted Oil and Gas Decarbonisation (INTOG) area E-b. Shipping intensity within the Golden Eagle field is described as moderate with an annual average of 2453 vessels passing within 10nm of the field.

There are 48 wrecks within 40km of the well. The closest wreck is 4km to the southeast. All of the wrecks are considered non-dangerous and there are no known wrecks of historical importance. The closest aquaculture site is 115km to the southwest of the Golden Eagle field.

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, 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 of the project on population and human health.

The HDJU will be sited within the existing 500m exclusion zone for the Golden Eagle platform, however the anchors will extend beyond this 500m zone with the anchors marked with buoys.

Fishing activities within the area are low to moderate, and no additional impacts to other marine users are identified as part of the drilling of well HPG. The assessment of the seabed disturbance as a result of the physical presence of the HDJU has been previously assessed as part of drilling well HPF, which is also part of the Golden Eagle infill drilling campaign.

There will be no seabed disturbance as a result of using OBM for drilling the 3 sections of the lower well, as all OBM will be routed back to the platform and treated via the TCC unit. Seabed disturbance from the discharge of WBM drill cuttings from the top hole section of the well could result in the smothering and mortality of benthic fauna which will result in some short-term temporary impacts. Burrowed mud habitats show a medium sensitivity to smothering, however studies have shown that species of sea pen can re-anchor themselves when dislodged. Ocean quahog have a short inhalant siphon which can become blocked with suspended sediment. There is the potential for mortality of individual ocean quahog, and the potential to effect the community of sea pens and burrowing megafauna. Cuttings modelling was undertaken for drilling 12 wells at a nearby installation, with a similar benthic environment to Golden Eagle. The modelling was based on a much higher volume of cuttings than that produced from the Golden Eagle wells, therefore the modelling is



understood to represent the worst case. The modelling showed that the cuttings pile height would peak at 2m and rapidly diminish to <6.5mm within 480m of the modelled wells, suggesting that the area around the well would be subject to a thin deposit of silt.

Given the very small area of impact and the discharge of the WBM to the water column, the widespread distribution, short life spans and high reproductive rates of the sensitive species in the area, it is not expected that the drilling of well HPG will affect those species population levels across the North Sea. It is expected that the benthic communities will regenerate in the area over time.

Noise generated from the project activities will not be significant, and it is concluded that 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 HPG well. The nearest boundary (UK/Norwegian median) is located approximately 153 km from the proposed well location. It is not considered likely that any planned operational discharge 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 one supply vessel, along with 4 additional flights during operations for HDJU personnel (the use of tugboats and anchor handling vessels for the positioning of the HDJU have been assessed in a previous well application for the Golden Eagle infill drilling campaign). Atmospheric emissions have been assessed from the diesel used for the supply 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 0.0242% of the total UKCS CO2 emissions (using 2021 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 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

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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