

Our Ref: 01.01.01.01-5780U  
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Offshore Petroleum Regulator  
for Environment & Decommissioning

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Registered No.: 01051137

Date: 13th November 2023

Department for Energy Security &  
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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 HPF wellWELL  
20/01-G2**

I refer to your amended application dated 2nd November 2023, reference DR/2400/2 (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 [opred@energysecurity.gov.uk](mailto: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 HPF wellWELL  
20/01-G2**

**DR/2400/2 (Version 1)**

Whereas CNOOC PETROLEUM EUROPE LIMITED has made an application dated 2nd November 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/16001/0/GS/1.

Effective Date: 13th 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 1 September 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](mailto: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](mailto: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**

This post amendment screening direction (ref: DR/2400/2) relates to a second change to the project for which screening directions were 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 (DR/2400/2):**

The project for which the initial screening direction was approved was to drill and complete a development well - 20/01 G2 (named HPF well) on the Golden Eagle platform. The second change to the project relates to:

- a. Drilling a contingency sidetrack from a whipstock within the 18 5/8" casing of the G2 donor well. This sidetrack will only be drilled if the HPF well is unsuccessful.
- b. The sidetrack well will be drilled in 3 sections: 16", 12 " and 8 ". All sections will be drilled with Oil Based Mud (OBM), which will be treated via a Thermo mechanical Cuttings Cleaner unit (TCC). The OBM will be treated at the shale shakers as per the original project plan, and will be reused in the drilling process. There will be no discharge of OBM to the marine environment.
- c. There will be an increase in the amount of drill cuttings and OBM treated by the TCC unit, which will increase the volume of cuttings slurry discharged to the marine environment.
- d. There will be no change to the overall length of the project, with the project

expected to last 71 days.

### **Summary of the Projects Previously Approved:**

#### **DR/2400/1 :**

A previous post amendment screening direction (ref: DR/2400/1) related to a change to the project for which a screening direction was previously issued.

The change to the project related to a change in the way the Oil Based Muds (OBM) are treated and discharged. The original project plan was to skip and ship the OBM and drill cuttings to shore for treatment. However, all the drill cuttings will be treated via a Thermo-mechanical Cuttings Cleaner (TCC) unit. The unit will be positioned on the drilling rig (Shelf Drilling Fortress) and will be able to treat the cuttings from drilling the well. The OBM will be treated at the shale shakers as per the original project plan, and will be reused in the drilling process. There will be no discharge of OBM to the marine environment.

The TCC unit will separate out and remove the oil and water from the drill cuttings. The TCC unit will produce a dry rock powder, which will be added to water produce a slurry, and will be discharged to the marine environment. Recovered water from the TCC process will have a low concentration of oil from the OBM, and will be discharged to the marine environment. The recovered water will be sampled on a regular basis to ensure that the oil content limit set by OPRED is not exceeded. This oil is from the OBM and is not reservoir hydrocarbon. Recovered base oil, from the oil and water separation process is reused in the OBM and is not discharged.

#### **DR/2400/0:**

The initial screening direction previously approved (ref: DR/2400/0) included the following:

#### **Summary of the Project (DR/2400/0):**

Drilling of a new sidetracked oil and gas production well (HPF), 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;

The project is expected to last 71 days, but has been extended within the application to account for weather and/or unforeseen operational delays;

Sections of the previously drilled G2 well will be suspended, cemented and abandoned in order to prepare for the sidetracking for the new HPF well

The well will be drilled in 3 sections. All 3 sections (16", 12 " and 8 ") will be drilled using Oil Based Mud (OBM), with the cuttings and OBM skipped to shore for recycling. This ensures there will be no discharge to the marine environment.

The assessment includes the completion phase of the project, and there will be no





extended well tests or vertical seismic profiling required.

## **Description of Overall Project**

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 HPF will be drilled from a HDJU from the Golden Eagle's platform. OBM and drill cuttings will be treated via a TCC unit, and the base oil from the OBM recovered back into the process. There will be a discharge of recovered water from the TCC unit which will contain a low concentration of oil from the OBM, and a cuttings slurry, which may also contain a low concentration of oil from the OBM. Sampling of the treated solids (which will form a slurry) and the recovered water will be undertaken to ensure that the discharges meet their consented limits. In the event that a contingency sidetrack well is required, the contingency well will be drilled in 3 sections, with additional treated slurry discharged to the marine environment (via the TCC unit). The well will be drilled within the already established 500m safety zone which surrounds the Golden Eagle platform. Operations are expected to last 71 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 second change to the project due to the proposed mitigation, the short duration of the project and the use of a TCC unit to treat the drill cuttings. OBM will be reused within the process, and there will continue to be no discharge of OBM to the marine environment.

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 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 change to the project has been considered as follows:

The HPF 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 HPF 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 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 HPF 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 25km<sup>2</sup>, while harbour seals densities range from 0-1 individuals per 25km<sup>2</sup>.

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 Marramwing Limited (10 km northeast of HPF well). HPF 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 second 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 second 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 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 HPF. Therefore, there are no significant effects likely in terms of physical presence from the proposed project.

There will be no seabed disturbance as a result of drill cuttings, as all the drill cuttings and mud (this also being a sidetrack well), will be treated via a TCC unit. The OBM will be reused within the process and the drill cuttings will be treated via the TCC unit. The fine particle size associated with the treated rock powder should ensure that the some of the powder is dispersed through the water column as opposed to all of the particles settling on the seabed. Modelling of the dispersion of drill cuttings powder in a number of scenarios has shown that the maximum thickness of deposit is approx.



0.04mm, which is a thin layer on the seabed. Ocean quahog, which may be present in the area, have high sensitivity to smothering over 30cm, whilst seapens, which are also present in the area, are not sensitive to changes in the suspended sediment. It has been concluded that a deposit of treated rock powder on the seabed, could result in a small, localised area being affected by smothering, with this affecting a small number of individual organisms, but this will not have any impact at the population levels.

There will be seabed disturbance from the siting of the HDJU, and this could result in the smothering and mortality of benthic fauna, which will result in some short-term temporary impacts. The HDJU has 3 jack up legs with spud cans which will be held in position with a 4 anchor mooring spread. The total area of seabed disturbance from the spud cans, anchors and anchor chains is 0.021 km<sup>2</sup>. The sediment within the area is not soft, therefore the spud cans are not expected to have a large penetration depth. The seabed conditions at Golden Eagle suggest that recovery from the physical disturbance due to the spud cans will be relatively rapid which is in part due to the shallower water depth. 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 second 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 HPF 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 2 anchor handling vessels, 2 tug boats, and 1 supply vessel along with 4 additional flights during operations for HDJU 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 0.038% of the total UKCS CO<sub>2</sub> 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 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