

Our Ref: 01.01.01.01-5487U
UKOP Doc Ref:1262201



Offshore Petroleum Regulator
for Environment & Decommissioning

CNOOC PETROLEUM EUROPE LIMITED
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Registered No.: 01051137

Date: 20th February 2023

Department for Business, Energy
& Industrial Strategy

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Crimon Place
Aberdeen
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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**

BUZZARD, COSLInnovator DRILLING PRODUCER WELL 20/01-N3 at NTM

A screening direction for the project detailed in your application, reference DR/2347/0 (Version 2), dated 9th February 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 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**

BUZZARD, COSInnovator DRILLING PRODUCER WELL 20/01-N3 at NTM

DR/2347/0 (Version 2)

Whereas CNOOC PETROLEUM EUROPE LIMITED has made an application dated 9th February 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/15083/0/GS/1.

Effective Date: 20th February 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 20 February 2023 until 31 December 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

BOP Gravity Base Stabilisation deposits

4 concrete gravity based tethers for the BOP shall be used (measuring 5.5m x 3.75m x 1.5-4m high).

4 Location of stabilisation or protection materials

BOP Tethering Infrastructure

Within 30 metres radius of NP3 well, and confined to locations immediately adjacent to the infrastructure requiring stabilisation or protection.

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

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:

Drilling of a new production well (NP3), at the Buzzard Northern Terrace Manifold (NTM) by sidetracking from an existing suspended well (20/01-N3z). The well will be drilled from a mobile drilling rig, the COSL Innovator, within the 500m zone of the NTM.

The larger sections of NP3 well be drilled using Low Toxicity Oil Based Mud (LTOBM), with the drill cuttings and mud fully contained and shipped onshore for further treatment. Water Based Mud (WBM) will be used for the smaller diameter sections, with the cuttings generated discharged to the sea.



Donor well N3z has been plugged and a corrosion cap installed. The suspension plug will be removed, and the new sidetrack well will be kicked off below the 13 3/8" shoe.

The Blow Out Preventor (BOP) for the well will be stabilised by 4 tethered gravity bases (5.5m x 3.75m x 1.5m-4m high), which will be in contact with the seabed.

The NP3 well will be drilled in 2 sections (12 " and 8 ")

The well will be tested once it has been completed with up to 1076t of oil and 0.18t of gas flared. The well test will last approx. 60 hours and is not considered an extended well test.

If the NP3 target is unsuccessful, then a contingency sidetrack well (NP3-ST) will be drilled (8" section only), and the cuttings from this well has been included in the assessment as a worst case.

Description of the Project

The Buzzard platform is a four fixed jacket structure comprising a wellhead, production, production sweetening and utilities platform in the central North Sea (CNS). Oil is exported via a pipeline to the Forties Pipeline System (FPS) whilst gas is exported via a pipeline to the Frigg gas pipeline.

The COSL Innovator drilling rig, which will be anchored to the seabed, will drill well NP3 as a re-entry geological sidetrack well at the NTM using donor well N3z. 4 concrete gravity bases will tether the BOP at the seabed for the well, to minimise lateral movement of the BOP. Only 4 gravity bases will be used at any one time as the rig moves from one well to the next. Two wells are to be drilled as part of a drilling campaign at the NTM, and another well (B34Y-D) will also be drilled, but the drilling of that well will be assessed in a separate assessment. The seabed disturbance from each well has however been cumulatively assessed in this application.

The 12" section of the well will be drilled with Low Toxicity Oil Based Mud (LTOBM) which will either remain downhole or be shipped to shore for disposal. The 8" section will be drilled with Water Based Mud (WBM) which will be discharged to the marine environment. In the event that the well is unsuccessful, an 8" contingency sidetrack will be drilled with WBM, with mud and cuttings discharged to sea. Operations are expected to last for 186 days which includes a contingency weather window and for operational delays. The operations will be conducted within the existing 500m safety zone at the NTM, however the anchors for the COSL Innovator will extend outwith this zone. The proposed project area is within a well-developed area of the CNS, and cumulative impacts from drilling discharges, atmospheric releases and oil and chemical releases have been assessed.

Once the well has been drilled, the well will be flowed back to the well test spread on the COSL Innovator. Oil and gas will be flared from the well for approximately 3 days.



It has been concluded that there will be no cumulative impacts expected to occur with this project due to the small area of seabed disturbance as a result of the cuttings, 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 Buzzard platform is located in the CNS, and is approximately 155 km from the UK/Norwegian median line and 60 km northeast of the Scottish coastline. NP3 well is located approximately 5km from the Buzzard platform at the NTM in water depths of around 90m.

Sediments within the region of the Buzzard NTM, comprise of silty sand and patches of muddy sand, with seabed megaripples with a height of 0.5m. Coarser sand and gravel is also present throughout block 20/1.

Recent surveys has shown that the epifaunal community predominantly comprises hermit crabs, sea stars and the occasional fish. 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). The low densities and presence of juveniles suggest that the area is unlikely to be of high conservation significance for the species. Seapens were observed at every sample station, and using the SACFOR scale, burrow densities were classified frequent. This means that the OSPAR listed habitat of 'seapens and burrowing megafauna communities' is present. No Annex I habitats were recorded in the area.

There is only one conservation area within 40km of the NTM. The Southern Trench Nature Conservation Marine Protected Area (NCMPA), is the closest site at 39km to the west, which is protected for minke whale, burrowed muds and subglacial tunnels and valleys. The closest Special Area of Conservation (SAC) is the Scanner Pockmark SAC, which is located 120km to the northeast and is designated for the Annex 1 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 demersal species. This area contributes to 0.42% of UK landings and 0.59% 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 NP3 will have a significant impact on the fishing industry in the area.

Seabird oil sensitivity in the vicinity of block 20/1 is extremely high in October and November, very high in October and November (for surrounding blocks), high in January and December, 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 harbour porpoise which is found in high densities in February and May, and July through to September. High densities of white beaked dolphin are also found in July to September. Grey and harbour seals are not frequently sighted within the area, with individual densities of grey seals ranging from 1-5 individuals per 25km², while harbour seals are between 0-1 individuals per 25km².

The project location is not within a military activity zone, with the nearest telecommunications cable (CNS Fibre Optic) located 30km to the southeast of the well. The closest windfarm is the Hywind Buchan deep demonstration floating offshore windfarm located 45km to the southwest. A number of offshore renewable projects areas are located within the area, with NE7 (for wind) located 5km from the well, and the Acorn Carbon Capture and Storage (CCS) lease site 9km to the north. There are no designated or protected wrecks within close proximity of the well, and there are no shellfish waters or aquaculture sites within the vicinity of the well. It is not anticipated that the proposed project will have a significant impact on either the wrecks, renewable energy areas or aquaculture sites.

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

Type and characteristics of the potential impact

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

The drilling rig will be sited within the existing 500m exclusion zone for the NTM, 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 NP3. 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. The discharge will result in a temporary effluent plume. 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 these will be significantly impacted by the drilling operations. Of the species present in the area, only Norway lobster, herring and sandeels use the seabed directly for spawning and are likely to spawn between the period of proposed 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. It has however been shown that the survey area is not a suitable site for Norway Lobster, and the area is more preferable for sandeels due to the sandy sediments. Sandeels present within the area will be impacted by smothering, however it is thought that due to the established burial characteristics of sandeels, there should not be a significant impact to sandeels at a population level.

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 0.1165 km². As the sediments within the area are comprised of sand, 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 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 NP3 well. The



nearest boundary (UK/Norwegian median) is located approximately 155 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 Buzzard 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 NP3 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 well test emissions from oil and gas flaring have also been included in the atmospheric assessment. The total atmospheric emissions from the vessels undertaking the project work and the well test emissions, as CO₂(e), is approx. 30,000 tonnes and accounts for 0.148% of the total UKCS CO₂ emissions (using 2018 as a baseline).

The emissions may result in a deterioration of the local air quality, but due to the relatively short duration of the work, and that the exposed conditions in the area will rapidly disperse the emissions, it is not anticipated that there will be a significant impact.

2) Decision

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

3) Mitigation of significant effects

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

n/a