



Offshore Petroleum Regulator for Environment & Decommissioning

Nexen Petroleum U.K. Limited
Buzzard Phase II Development

Environmental Statement Summary

To: Jonathan Ward

From: Nienke Mayo

Date: 25 July 2018

ES Title:	Buzzard Phase II Environmental Statement
Developer:	Nexen Petroleum U.K. Limited
OGA Field Group:	Central North Sea
ES Report No:	D/4193/2016
ES Submission Date:	30 June 2017
Block Nos:	19/05a, 19/10, 20/01, 20/06
Development Type:	New subsea tieback to increase production

Project Description

Nexen Petroleum U.K. Limited (Nexen) propose to undertake further development of the Buzzard field *via* a subsea tieback targeting a previously unexploited area of the reservoir. The Buzzard Phase II (BP II) project will increase production from the Buzzard field by accessing reserves in the northern part of the reservoir which cannot be reached from the existing Buzzard Wellhead Platform. The development will be located in Blocks 20/01 and 20/06, approximately 60 kilometres (km) from the nearest UK coastline at St Fergus, Aberdeenshire and approximately 160 km from the UK / Norway median line. Water depths in the Buzzard area range from approximately 85 – 100 metres (m).

The project will involve the drilling of up to eight production wells and four water injection wells approximately 5 km northeast of the existing Buzzard complex using a semi-submersible drilling rig. The wells will be linked to a single manifold that will be connected to the Buzzard Production Platform *via* a bundled pipeline system consisting of a production pipeline, production test pipeline, water injection pipeline, gas lift pipeline and control umbilical. The pipeline bundle will be laid on the surface of the seabed and it is estimated that approximately 2,500 tonnes of grout bags, 1,100 concrete mattresses and 280,000 tonnes of rock may be required for pipeline protection and stabilisation. These quantities were based on an initial concept before a bundled system occupying a single pipeline route was selected by Nexen, and are therefore likely to represent a significant over-estimate. Minimal modifications are required to the existing Buzzard complex, involving the installation of a process module on the Buzzard Production Platform to accommodate the BP II fluids.

Drilling is scheduled to take place between Q2 2019 and 2022; modifications to the existing Buzzard Production Platform are planned for Q1 2020; installation and commissioning of the pipeline system and subsea infrastructure is planned for Q2-3 2020; and first oil is expected in Q4 2020. Peak daily production from the Buzzard field, including BP II, is anticipated to be approximately 18,000 tonnes per day of oil and 1,198,000 cubic metres per day of gas.

Key Environmental Impacts

The Environmental Statement (ES) identified and discussed the following as having the potential to result in an environmental impact:

- Physical presence of the drilling rig and subsea infrastructure;
- Disturbance to the seabed;
- Discharges to sea;
- Atmospheric emissions;
- Underwater noise;
- Interaction with other users of the sea;
- Waste; and
- Accidental events.

Key Environmental Sensitivities

The ES identified the following environmental sensitivities:

- Fish: The Buzzard field is located within spawning grounds for lemon sole, Norway pout, whiting, sandeels, sprat, herring and the Norway lobster (*Nephrops*); and within nursery areas for blue whiting, haddock, lemon sole, Norway pout, whiting, sandeels, sprat and *Nephrops*. However, the spawning and nursery areas are extensive and the proposed BPII operations are unlikely to have any impact on these species.
- Seabirds: Seabird vulnerability is high or extremely high in January, July, October, November and December, but low for the remainder of the year. It is considered that sufficient mitigation measures are in place to prevent accidental spills that could impact seabirds, and Nexen already has an approved Oil Pollution Emergency Plan (OPEP) for the Buzzard area which will be updated to cover the BPII activities.
- Protected habitats: The closest protected areas to the BPII location are the Turbot Bank Nature Conservation Marine Protected Area (NCMPA) and the Southern Trench proposed NCMPA, both of which lie approximately 40 km from the Buzzard field. The proposed operations at BPII are not expected to have any significant impact on these or any other protected habitat.
- Protected species: Bottlenose dolphin, white-beaked dolphin, white-sided dolphin, harbour porpoise and minke whale have all been recorded in the area. Grey and common seals inhabit coastal and inshore waters adjacent to Scotland and have occasionally been observed to travel long distances when foraging. However, both species are unlikely to be present in large numbers in the Buzzard area. No disturbance of marine mammals, or any other adverse impacts on marine mammals, are anticipated in relation to the proposed BPII activities.
- Other users of the sea: The BPII location is located within ICES rectangle 44E9 and fishing effort in the area is considered to be moderate. Shipping density in the vicinity of Blocks 20/01 and 20/06 is low. Appropriate navigational controls will be put in place

and it is not anticipated that the proposed BPIL activities will have any significant impact on other users of the sea.

- In-combination, cumulative and transboundary effects: No significant in-combination, or cumulative effects are anticipated as a result of the BPIL project. Potential transboundary effects were considered as part of the hydrocarbon spill modelling assessment, but these were concluded to not be significant.

Key Mitigation Measures (including environmental or monitoring conditions)

No significant adverse impacts are anticipated that would warrant specific mitigation measures or monitoring conditions. All activities will be undertaken in line with commitments detailed in the ES and best industry practice.

Consultation

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), the Maritime and Coastguard Agency (MCA) and the Ministry of Defence (MoD) were consulted on the project. The ES was also subject to public notice.

JNCC: JNCC confirmed that they had no objections.

MS: MS confirmed that they had no objections.

MCA: MCA confirmed that they had no objections.

MoD: MoD confirmed that they had no objections.

No comments were received in response to the public notice.

Further Information

Further information was requested from Nexen to address issues raised during the internal BEIS OPRED review. The information requested mainly related to clarification of selected options for the project, including clarification relating to the number of manifolds, the pipeline routes and the pipeline stabilisation materials. The additional information received from Nexen on 2 February 2018 addressed all of the issues that were raised.

Determination

Following review of the ES, the responses received from consultees and the additional information provided by Nexen, BEIS OPRED is satisfied that this project will not have a significant adverse impact on the receiving environment or the living resources it supports, or on any protected habitats or species or other users of the sea.

On the basis of the information presented in the ES, the advice received from consultees and the additional information provided by Nexen, BEIS OPRED is content that there are no objections, and agrees to the OGA issuing the necessary consent for the proposals.

Jonathan Ward

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Jonathan Ward
Director, Environmental Operations

26/07/2018

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Date



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