

Environmental Statement (ES) Summary and Sign-Off

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| Title: | Production Consent Increase Environmental Statement for the Beryl Field |
| Operator: | Apache Beryl I Limited |
| Report No: | D/4156/2013 |
| Submission Date: | December 2013 |
| Block Nos: | 9/12a, 9/13a,b,c,d, 9/18a, 9/19c. |
| Development Type: | Increase in Production |
| Reviewer: | Valerie Appleyard |
| Date: | 14 March 2014 |

A) Project Description:

The Beryl Field is located in the northern North Sea, 153km east of the Shetlands and between 5 and 15km from the UK/Norwegian median line. The field is located in water depths varying between approximately 95-122 metres. Current production forecasts indicate the potential for production to exceed that already consented for the Beryl Field and the incremental rates of oil production from 2014 are forecast to be more than 500 tonnes/day.

No modifications are necessary to the existing infrastructure and there is sufficient capacity within the existing facilities to accommodate such an increase.

B) Key Environmental Sensitivities

The Environmental Statement (ES) identified the following potential environmental sensitivities:

- **Fishery stocks:** The Beryl area is within spawning and nursery grounds for a number of fish species, in particular being spawning ground for haddock, Norway pout, whiting and saithe and a nursery ground for haddock, Norway pout, mackerel and blue whiting.
- **Seabirds:** Seabird vulnerability to surface pollution in the area varies from low to very high throughout the year, with high to very high vulnerability in January, July, October and December.
- **Areas of conservation interest:** There are no offshore conservation sites in the vicinity of the Beryl area, the closest being the Braemar Pockmarks Site of Community Importance (SCI) 40km to the south.
- **Species of conservation interest:** A number of cetacean species are recorded regularly in the area, including harbour porpoise, white beaked dolphin, Atlantic white-sided dolphin and minke whale.
- **Other users of the sea:** Fishing effort is focused on demersal species, but total effort is relatively low. Shipping intensity within the area is low.

C) Key Environmental Impacts:

The ES identified the following potential impacts and related mitigation measures:

Physical presence: No incremental topsides infrastructure is planned. It is uncertain at the present time whether the production increase will be achieved through drilling production wells directly from the Beryl platforms or through the utilisation of a mobile drilling rig (MoDU). If a mobile rig is deployed, the potential impact of its presence will be addressed through the relevant PETS application.

Seabed disturbance: The proposed increase in production may necessitate the use of a MoDU. Any potential impact on the seabed from positioning a rig will be assessed in the drilling application made through the PETS system.

Atmospheric emissions: The main sources of atmospheric emissions relating to the Beryl field are from the dual fuel turbines used for power generation. No additional equipment will be needed to process the increase in production and fuel gas/diesel consumption should not significantly change. Emissions are covered under PPC and EU-ETS controls and the proportion of incremental emissions from the proposed operations is small compared to emissions from all oil and gas operations in the UKCS.

Methane and VOCs are released during oil transfer to tankers. Emissions will increase as a result of the increased production. The tankers used to transfer oil from Beryl have VOC management plans in place.

Marine discharges: Water production is expected to increase corresponding to the enhanced hydrocarbon recovery from the Beryl Field. It is anticipated that approximately 60% of this will be discharged to sea resulting in a worst case estimate of 71.9 tonnes being discharged in 2017. This assumes oil in water concentration of 20mg/l although observed concentrations are typically in the range 13-18mg/l.

Accidental events: The oil spill modelling of the worst case scenarios of well blowout or storage tank rupture indicate a 26% and 22% likelihood of beaching on either the UK or Norwegian shoreline. A number of control measures are in place to minimise the risk of accidental events and an approved Beryl Field Offshore Oil Pollution Emergency Plan is in place.

Cumulative Impacts: The proposed increase in production is not anticipated to result in any significant in-combination or cumulative impacts on other oil and gas operations, shipping or commercial fishing operations.

Transboundary Impacts: Despite the proximity of the UK/Norway median line, Routine activities associated with the proposed increase in production are unlikely to result in transboundary impacts.

D) Consultation:

The ES was submitted to Joint Nature Conservation Committee, Marine Scotland, the Ministry of Defence, the Maritime and Coastguard Agency and the Northern Lighthouse Board for comment. The ES was also subject to public notice. Statements of no objections or concerns were received from the consultees and no comments were received in response to the public notice.

E) Further Information

No further information was required to assess the environmental impact of the production increase described in the ES.

F) Conclusion:

Following consideration of the ES and the comments received from consultees, DECC OGED is satisfied that this project will not have a significant impact on the marine environment.

G) Recommendation:

DECC OGED is content that there are no environmental or navigational objections to approval of the proposals, and has advised DECC LED that there are no objections to the grant of the relevant consents.

Approved :

Sarah Pritchard - Head of Environmental Operations Unit

Date: