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Consents given under the Petroleum Act 1998 and Reviews under the Assessment of Environmental Effects Regulations 1999

Operator: Shell

Reference: D/3380/2006

Name of Project: Curlew C Development

The Curlew C development is located in Block 29/7 in the central North Sea, approximately 5.8 km east of the Curlew FPSO, 215 km east-south-east of Aberdeen and 67 km from the UK/Norwegian median line.

The project comprises of drilling and completing one new well, tied back via a 5.8 km production and gas lift pipeline and a control umbilical to the existing Curlew FPSO.

- The wells will be drilled using a standard semisubmersible rig for this type of operation.
- The well is to be drilled using WBM mud for top hole and bottom hole sections with OBM for the mid sections.

The production fluids will be transported via a 5.8km, 8" production pipeline, 3" gas lift pipeline and umbilical to the existing Curlew FPSO. The line will be trenched and buried and there may be a requirement for rock dumping.

The Environmental Description covers all the relevant main areas and no particular sensitivities have been identified.

The EIA identified the following hazards as having the potential to cause potentially significant impacts

- Discharge of WBM
- Local disturbance to the seabed caused by anchoring of the drilling rig
- Emissions from well clean-up and testing
- Installation/physical presence of pipeline
- Long term physical presence of the pipelines
- Accidental hydrocarbon spill.

The potential effects and the control measures in place to

minimise the effects are described.

Discharge of Water Based Mud (WBM) - The discharge of WBM and associated cuttings have been modelled and the area of potential impact identified. The discharge of WBM will have a localised impact on the benthic communities present. However, habitat recovery is likely to be relatively rapid via dispersion, dilution and breakdown of chemicals. Evidence from previous wells drilled using WBM has demonstrated that the impacts are relatively short lived.

Localised disturbance to the seabed from anchoring the semisubmersible drilling rig. Eight anchors may be laid in order for the drilling rig to maintain position. Approximately 300 metres of chain will be in contact with the seabed and the anchors can cause anchor mounds up to 1 metre high. There is inevitably a localised physical impact. However, the species identified from surveys undertaken at Curlew C indicate no species that are particularly rare or localised. Recovery is also expected in the short to medium term.

Emissions - No extended well test is planned. A maximum of 1,900 tonnes of oil and 1.9 mmscf/day of gas may be flared during the well clean-up of each well releasing approximately 7,500 tonnes of CO2.

Installation and long-term presence of pipeline - the 5.8km pipeline will be trenched and buried using a plough to a depth of at least 1.5 metres. It is anticipated that a total of approximately 70,000 tonnes of graded rock will be required to stabilise the lines by preventing upheaval buckling. The top of the rock dump will be below the top of the trench and it is therefore envisaged that natural sediment flow will cover much, if not all of the rock. The area of impact is estimated to be 0.058km2. Any impacts arising from these activities are relatively localised and minimised by ensuring that the rock remains below the level of the trench and therefore allowing natural surface sediments.

Accidental hydrocarbon spill - Oil spill modelling for up to 6,335 tonnes of crude oil have been modelled. The oil is modelled as if coming from a major spill at the Curlew FPSO. The modelling indicates that the spill will disperse within 44 hours. An OSCP is in place for the Curlew FPSO.

Conclusion:

An environmental statement was submitted to cover the proposed field development, which considered the potential implications of the development. Following consultation with the statutory consultees and the provision of additional information for clarification purposes from Shell, we are satisfied that this project is unlikely to have a significant impact on the receiving environment, including any habitats and species protected under relevant conservation legislation.

Recommendation:

Based on the information presented in the ES and further information received it was advised that project consent be given on 10 May 2007.

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