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

Enterprise Oil

COOK FIELD

Pursuant to Regulation 5(8) of the above Regulations, the Secretary of State for Trade and Industry gives notice that, being content that the requirements of the above Regulations have been satisfied, he has, pursuant to Licence P185, granted a consent to Enterprise Oil Plc to the getting of petroleum and the construction of installations in relation to the development of the Cook field. The consent for the Cook field took effect from 24/05/99 and shall last until 31/12/05.

Background

Enterprise plan to drill two wells in Block 20/21a in about 95m of water; 170km from the Scottish coast and 105km from the Norway/UK median line, with an 8" tieback facility to the Anasuria FPSO. Environmental data shows the region is typical of the central sector of the North Sea and not known to be particularly important for seabird or marine mammal populations; densities are low. The Cook Field is a mixed oil and gas reservoir, the hydrocarbon bearing formation at a depth of 3688m (12,100 ft), and an expected life of about five years. The area around Cook has been developed extensively over the past 15 years.

Drilling

A subsea tie-back to current facilities was viewed as the most efficient for development of Cook, given the technological constraints on extended reach drilling (over 12 km) from existing infrastructure. Two wells are planned, the justification for the second being confirmed some time after the first has been in operation. Any rig hired by Enterprise will have an EMS in place and past performance in waste management will be a selection factor.

The 36" and 26" hole sections will be drilled riserless with seawater, producing 670 tonnes of cuttings. The 17½" section will utilise WBM, producing 685 tonnes and the 12¼" and 8½" sections will utilise LTOBM producing 154 tonnes. This will give a total tonnage of cuttings for the well of 1509 tonnes. Enterprise intends to recover LTOBM contaminated cuttings and return them to shore. The rig will be equipped for total containment so all wastes will be disposed of in an appropriate manner. In the unlikely event of a side-track, the same philosophy will be followed and the volume of cuttings generated unlikely to exceed those given above. The decision to use LTOBM was not taken in isolation from other drilling issues; the minimum volume will be used, based on a mineral oil refined to reduce toxicity, thus allowing it to be approved for North Sea use.

Well Suspension / Testing

It is not planned to suspend the first (P1) well, rather to drill and complete in a continuous process. Completion fluids are described.

A short-term test of well P1 will be carried out, totalling around 48 hours of flow. A flare consent will be prepared and submitted once the test programme has been finalised. The rig will have a flare system ensuring no liquid drop-out to the sea.

Decommissioning

Production from the Cook field is expected to cease in 2004 or 2005. Decommissioning of all Cook field facilities will be in accordance with relevant UK and international legislation and guidelines in force at that time.

Environmental Sensitivities and Impacts

The Cook development is small in scale when compared with the majority of UKCS developments and the area is not known to be particularly important for seabird or marine mammal populations; densities are low.

Proposed mitigation measures include:

- Reducing the potential for interference with other sea users by burying the pipeline and

umbilical and fitting an overtrawlable frame to the wellhead.
- Transporting all LTOBM drill cuttings to shore.
- Use of high efficiency burner during well test flaring operations.
- Utilising a DP pipeline barge to avoid anchor mounds on the seabed.
- Informed chemical selection avoiding where possible category 2/C or higher.
- Managing the implementation of mitigation measures proposed in the ES.

There will be some impacts associated with drilling operations and during wellhead and pipeline installation but the majority of these are short-term.
No significant marine contaminants will enter the biological environment from these activities, it is expected the communities will recover relatively quickly from any disturbance.

Recommendation

Overall the ES is satisfactory and adequately assesses the potential environmental impacts of the proposed development. Recommend that consent be given.