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

BG Group

MERCURY AND NEPTUNE FIELDS

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 Licences P1, P302 & P28, granted a consent to BG International Limited to the getting of petroleum and the construction of installations in relation to the development of the Mercury and Neptune fields. The consent for the Mercury and Neptune fields took effect from 02/11/98 and shall last until 31/12/01.

Background

Neptune and Mercury are both located in a mature gas province with existing infrastructure in the area. Produced gas will be exported via an existing pipeline. For the production facilities, two development options were available, a subsea development or a platform development. A subsea development was chosen for Mercury whereas for Neptune, a platform was selected in order to process the produced water [higher volumes than for Mercury] and to reduce requirements for the addition of hydrate-inhibiting chemicals. Export of the gas was either by a new pipeline to Easington or export via existing facilities to either Cleeton or N Ravenspurn. Export to the Cleeton platform via existing facilities was chosen.

Drilling

Three wells will be drilled at Neptune and an existing well will be re-used. Two wells will be drilled at Mercury. The wells at Neptune are each expected to take 50 days to drill and complete. The Mercury wells are expected to take up to 60 days to drill and complete. (Water Based Mud) WBM will be used except for the 16" section of the Mercury wells. SBM will be kept as contingency for other sections in the event of problems. Mercury wells are scheduled to be drilled in Q4, 1998/Q1,1999. Neptune wells are scheduled to be drilled in Q3 and Q4 1999.

Well Testing

Following discharge of the well completion fluids [120 m³/well] the wells will be allowed to flow for ca 6 h for testing. Approximately 320 te/well gas will be flared from the rig.

Decommissioning

Wells will be plugged and abandoned. The Neptune platform/riser tower and all above-sea bed facilities will be removed for re-use or disposal onshore.

Hydrotesting

Approximately 1,900m³ of seawater for the Mercury to Neptune pipeline and 800 m³ for Neptune to Cleeton pipeline will be discharged to the sea. This water will be inhibited with biocide/oxygen scavenger/corrosion inhibitor and dye. Dispersion modelling shows a predicted dilution of greater than X10 within 5m of the discharge.

Cumulative impacts not assessed. Thermoclines, prevalent east of the area of interest not identified. Neptune platform and Mercury subsea facilities will be installed during the spawning season. Benthic survey will be undertaken after drilling to confirm that no cuttings have accumulated; the results of this should be fed back into the EMS. A site specific OSCP will be developed

This is a mature area with little in the way of any marked environmental impact. It is a gas development involving minimal additional equipment for the gas winning process. Hydrotesting of pipelines is adequately dealt with and the volumes of produced water are adequately assessed and impacts put into context. An on-line oil in water monitoring facility should be available on Neptune.

Recommendations

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