

**Talisman Energy (UK) Limited – Burghley Development Project**  
**Comments On Environmental Statement**

To: Sarah Pritchard

Signature: *S Pritchard*

From: Carol Newbigging

Date: 24<sup>th</sup> June 2009

Date: 22<sup>nd</sup> June 2009

<b>ES Titles:</b>	Burghley Development
<b>Operator:</b>	Talisman Energy (UK) Limited
<b>Consultants:</b>	BMT Cordah Ltd
<b>ES Report Nos:</b>	D/4026/2008
<b>ES Date:</b>	December 2008
<b>Block Nos:</b>	Block 16/21 & 22
<b>Development Type:</b>	A single well development tied back to the Balmoral Floating Production Vessel (FPV)

**Synopsis:**

Talisman Energy (UK) Limited (Talisman) proposes to develop the Burghley discovery in Block 16/22, as a subsea tie-back to the Balmoral Floating Production Vessel (FPV) which is approximately 8.5km east in Block 16/21. Daily production rates from the Burghley Development are forecast to peak at up to 15,000 barrels per day of oil and  $2.9 \times 10^6$  scf/day of gas. Expected field life for the proposed development is up to 15 years.

A 10" carbon steel production pipeline will connect the well to the subsea Balmoral template over a route distance of approximately 10.4km. Talisman estimate that 64,000 tonnes of rock will be required for pipeline crossings. The pipelines and installation will be designed to mitigate the requirement for rock dumping. A 4" flexible riser will connect to the Balmoral FPV which is a semi-submersible processing vessel operated by Premier Oil Ltd.

Drilling the well is scheduled to commence in July 2009, with first oil expected to be produced in 2010.

Low Toxicity Oil Based Mud (LTOBM) will be used. It is estimated that a total of 844 tonnes of mud and cuttings will be produced. If a pilot hole is drilled, an incremental volume of 92 tonnes will be produced. The contaminated LTOBM and cuttings will be returned to the drilling vessel through the mud return line where the shakers will sieve the cuttings from the mud. The cuttings will be contained and shipped to shore for processing. The recovered mud will be drained back into the mud pits and will be recycled back down the hole by the mud pump.

There is a possibility that up to 4000 tonnes of oil and gas will be flared during the well flow clean-up and testing, which means it would be an Extended Well Test (EWT). Talisman has submitted a PON15B for a direction for the EWT.

The discharge of produced water at Balmoral will be permitted under the OPPC life permit for the FPV, and a variation will be applied for, to reflect the

increase in produced water tonnage at Balmoral as a result of the Burghley Development. It is estimated that the Burghley Development will increase the total volume of oil discharged annually in produced water by a maximum of approximately 22 tonnes at Balmoral. This is the maximum that would be discharged from the FPV based on achieving the OPPC legal maximum of 30mg/l.

The FPV exports oil via the Forties Pipeline System. It does not have any gas export facilities and therefore any gas that is not used for fuel is flared. Balmoral is forecast to become gas-deficient around 2013. It is anticipated that a total of  $3.3 \times 10^9$  scf of gas will be produced and burnt either as fuel or flare over the life of the Burghley field. The worst case emissions would result in 0.1% of UKCS emissions from offshore oil and gas activities.

A thermal input of ~8.5MW (th) will be required to provide the additional 2MW of power output which will be required at the Balmoral FPV for the Burghley Development. The estimates of 14,920 tonnes annual CO<sub>2</sub> emissions that will result from the additional power requirements of the Burghley Development are less than an increase of 40,000 tonnes of CO<sub>2</sub> per annum. This indicates that the tie-back will not trigger a substantial change under the Offshore Combustion Installation (Prevention & Control of Pollution) Regulations 2001. Premier Oil will have to submit a letter formally to DECC requesting that a substantial change assessment be carried out.

As a result of an environmental risk assessment there were the following potentially significant aspects identified and addressed within the ES:

- Seabed Disturbance
- Atmospheric Emissions
- Physical presence of pipeline crossings and subsea structures
- Accidental hydrocarbon release
- Transboundary impacts

Mitigation measures are in place to ensure that impacts are kept to a minimum.

**Recommendation:** Based on the information in the Environmental Statement and further information requested from Talisman, it is recommended that project consent be given.

**Consultees:**

<b><u>JNCC:</u></b>	No objections.  The DTI Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 were considered and no significant effects likely.
<b><u>FRS</u></b>	No objections.