

TOTAL E&P UK limited (TEPUK)
Glenelg Production Consent Increase
Environmental Statement Summary

To: Sarah Pritchard

From: Evelyn Pizzolla
Date: 12 August 2010

ES Title:	Glenelg Production Consent Increase
Operator:	Total E&P UK limited (TEPUK)
Consultants:	Hartley Anderson Ltd
Field Group (DECC):	Aberdeen
ES Report No:	D/4083/2010
ES Date:	02 June 2010
Block Nos:	29/4d
Project Type:	Production Increase

Project Description

Glenelg is a high pressure/high temperature (HP/HT) sour gas condensate field located in the Central North Sea in Block 29/4d, 220km east-south-east of nearest landfall on the north east of Scotland and 37km west of the UK/Norway median line. The Glenelg field was developed via a single deviated trajectory well drilled 4km east from the Elgin Well Head Platform (WHP) and production commenced in March 2006. Glenelg fluids are processed together with fluids from the Elgin and Franklin fields at the Elgin Production Utilities Quarters (PUQ) Platform. Gas is exported to the Bacton Terminal through a gas export line shared with the Shearwater field and condensate is exported to the Kinneil Terminal via the Forties Pipeline System. No additional infrastructure was required at any site.

The ES was submitted to support the application to increase production from the Glenelg field by more than 500,000m³ of gas per day above current consent levels. The EIA provides a systematic assessment of the environmental effects of the proposed increase on the surrounding environment, including cumulative effects.

Key Environmental Sensitivities

The project area is considered to be a typical Central North Sea offshore environment where there are no biological or other features that are particularly sensitive to the proposed increase in production, nevertheless, the ES addressed the significance of the project's interactions with the surrounding environment.

Key Potential Environmental Impacts

As no additional infrastructure is required at any site there will be no disturbance to the seabed.

However, the following key potential impacts were addressed in the EIA

- Atmospheric emissions
- Produced water emissions
- Chemical use & discharge

- Accidental hydrocarbon spills
- Cumulative and synergistic effects

Atmospheric emissions

Flaring - All gas produced, surplus to power generation requirements, is exported from the Elgin PUQ. However, the Elgin PUQ is equipped with a flare to allow the safe disposal of gas during equipment outages or emergencies and gas is used to purge the flare to prevent explosive mixtures within the system from back-drafts. Glenelg is produced in the same manner as the Elgin wells and therefore not expected to change the magnitude or frequency of equipment outages. The increase in production is therefore not expected to result in increased flaring and therefore no incremental impacts are predicted.

Equipment & power – No additional equipment will be required to process the increase in production and no associated increases in power will be required. Consequently fuel gas/diesel consumption and associated atmospheric emissions should not significantly change from current levels.

Produced water (PW) emissions

As a gas condensate field, Glenelg produces relatively low volumes of water. In a maximum production scenario the field would contribute approximately 400m³ produced water per day with an associated 8kg of oil at a concentration of 20mg/l. The Elgin produced water system regularly achieves concentrations below this level (11.1mg/l in 2009) and has been recently upgraded to maintain this performance. In the water depths and tidal currents around the Elgin PUQ the PW and associated oil would be expected to disperse to below no-effect concentrations close to the discharge point and therefore, no significant PW impacts are expected from the increase in production.

Chemical use & discharge

The Elgin PUQ platform has an approved production chemical permit (PON15D) for the extraction and processing of hydrocarbons from the associated fields. It is anticipated that there will be a small increase in some process chemicals. Corrosion inhibitor is used in the export pipeline but there is no discharge and therefore no impact on the marine environment. There will be a potential increase in the use of existing scale inhibitor(s) to topside process equipment and in downhole squeeze treatments. This will result in a slight increase in the discharge to sea however, it is expected to disperse rapidly with negligible impact. Future processing may require the use of a demulsifier which would be selected with reference to the Cefas product ecotoxicity assessment tables and relevant chemical permit.

Accidental hydrocarbon spills

The Glenelg and associated fields produce gas condensate. Other hydrocarbons that could potentially be spilled include helifuel, diesel and hydraulic fluid. However, increased production from the Glenelg field should not increase risk of spillage. Should a spill occur, however, condensate or diesel would be expected to rapidly evaporate, disperse and dissolve at sea and would not be expected to approach the coastline or significantly impact on floating seabirds or passing cetaceans. In any event, Total maintain a dedicated Oil Pollution Emergency Plan for the fields in the area which would be invoked should any spillage occur.

Cumulative and synergistic effects

The proposed increase in production from the Glenelg field will only result in relatively minor increases in PW and associated oil and chemical discharges and is therefore not anticipated to result in any adverse incremental or cumulative effects.

Public Consultation: No comments were received as a result of the public consultation.

Consultee(s):

The statutory consultees for this project were JNCC and Marine Scotland (MS). The following comments were received:

JNCC -: JNCC commented that they considered the proposed production increase was unlikely to have a significant effect on the nature conservation value of the marine environment..

Marine Scotland -: MS commented that the environmental description was brief but adequate for the purposes of a production increase. MS considered that good use had been made of both site specific and generic data and that the ES covered the relevant areas of concern for a production increase.

Conclusion(s):

Following consultation, DECC and its consultees are satisfied that this project is not likely to have a significant impact on the receiving environment, including any sites or species protected under the Habitats Regulations.

Recommendation(s):

On the basis of the information presented within the ES and advice from consultees it is recommended that the ES should be approved.

Sarah Pritchard
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18 August 2010
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Sarah Pritchard

Date