

## Environmental Statement (ES) Summary and Sign-Off

<b>Title:</b>	Production Consent Increase Environmental Statement for the Lennox Field
<b>Operator:</b>	BHP Billiton Petroleum Limited
<b>Report No:</b>	D/4153/2012
<b>Submission Date:</b>	December 2012
<b>Block No:</b>	110/15
<b>Development Type:</b>	Extension of Production
<b>Reviewer:</b>	Tracy Edwards
<b>Date:</b>	3 <sup>rd</sup> October 2013

### A) Project Description:

The Lennox Field is located in Block 110/15 in the Irish Sea, 9 kilometres (km) west of the English coastline and 139 km from the UK / Republic of Ireland median line. The field is located in a water depth of approximately 7 metres. BHP have converted a number of oil producing wells to dedicated gas wells by shutting out the watered-out oil zone, which is estimated to increase the gas production above the current consented limits by an average of 1,698 thousand m<sup>3</sup>/day over the period 2013-2019. To date, thirteen Lennox wells have been converted. There is no proposed increase in oil production.

No modifications are necessary to the existing infrastructure and there is sufficient capacity within the existing facilities to accommodate such an increase.

### B) Key Environmental Sensitivities

The Environmental Statement (ES) identified the following environmental sensitivities:

- **Fishery stocks:** The Lennox area is within spawning and nursery grounds for a significant number of fish species, in particular being spawning ground for cod, whiting, mackerel, sandeel, sprat and a number of flatfish species, and a nursery ground for herring, anglerfish and species of ray.
- **Seabirds:** Seabird vulnerability to surface pollution in the area varies from low to very high throughout the year, with very high vulnerability during the winter months from December through to March.
- **Areas of conservation interest:** The Lennox field is located within the Liverpool Bay Special Protection Area (SPA) and is approximately 2.5 km from the Fylde Offshore Marine Conservation Zone (MCZ).
- **Species of conservation Interest:** A number of cetacean species are occasional visitors to the Irish Sea area, but only Harbour Porpoises and Bottlenose Dolphins are frequently observed in the area. Both grey and common seals are present within the area, but there are not significant populations, despite a number of haul-out sites.
- **Other users of the sea:** Fishing effort is focused on demersal and shellfish species, but total effort is of comparatively low value. Shipping intensity within the area is high.

### C) Key Environmental Impacts:

The ES identified the following potential impacts and related mitigation measures:

**Physical interference:** There will be no incremental infrastructure, either topsides (surface) or subsea, relating to the production increase, and therefore no physical interference relating to the proposals.

**Seabed disturbance:** The proposed increase in production will use existing capacity within the Lennox and Douglas infrastructure and facilities, and no seabed interference impacts are anticipated.

**Atmospheric emissions:** The main sources of atmospheric emissions relating to the Lennox field are the two gas turbine power generators on the Douglas platform, which provide power for the Lennox production. These turbines will run more efficiently as production increases, and the increase in emissions is not considered to be substantial. The overall predicted emissions will remain below historic emissions at Douglas and are assessed as insignificant in a UK context. There will be no requirement to vary any related permits.

**Marine discharges:** The proposed gas production increase coincides with a change in the Produced Water Management philosophy, and produced water will be routed to Douglas and re-injected for 90% of the time (on average) instead of being discharged at the Lennox platform. Produced water volumes are also expected to decrease as a result of the conversion of the watered-out oil wells. It is considered that potential environmental impacts will be reduced and negligible.

**Accidental events:** A number of control measures will remain in place to minimise the risk of accidental events, as detailed in the Liverpool Bay Oil Pollution Emergency Plan. There will be a reduced risk of a crude oil spill relating to the Lennox production.

**Cumulative Impacts:** Although the proposed development is in an area where there are a number of other oil and gas operations, in addition to shipping and commercial fishing operations, it is not anticipated that there will be any significant in-combination or cumulative impacts.

**Transboundary Impacts:** The UK / Republic of Ireland median line is approximately 139 km from the development area, and no transboundary impacts are considered to be likely as a result of proposed operations.

### D) Consultation:

The ES was submitted to Natural England (NE), the Centre for Environment, Fisheries and Aquaculture Science (CEFAS Environment & Chemical), the Ministry of Defence (MOD), the Maritime and Coastguard Agency (MCA) and the Marine Management Organisation (MMO) for comment. The ES was also subject to public notice. Statements of no objections, concerns or comments were received from the MOD and MMO.

**NE:** NE was satisfied that there were no significant negative environmental impacts resulting from the increase in gas production. They requested that they should be consulted on the Chemical Permit application, and were advised that CEFAS Chemicals undertook risk assessments for all chemical use and discharge.

**CEFAS (Environment):** CEFAS Environment confirmed that they have no concerns, but offered comments regarding fisheries communications.

**CEFAS (Chemicals):** CEFAS Chemicals raised concerns in relation to the planned increase in use of a single chemical during the production operations, but did not object to the approval of the Environmental Statement as they were content to address that issue at the Chemical Permit application.

**MCA:** MCA advised that notifications to operators and fishermen's organisations and the United Kingdom Hydrographic Office (UKHO) should be incorporated into any relevant environmental or navigational approvals.

**Public Notice:** No comments were received in response to the public notice.

**E) Further Information**

Further information was requested from BHP in relation to the produced water profiles and power generation emissions, and to request clarification of a number of minor issues. Additional information was provided by BHP on 14<sup>th</sup> August 2013, which adequately addressed the issues raised.

**F) Conclusion:**

Following consideration of the ES and the comments received from consultees, and the provision of further information by BHP, DECC OGD is satisfied that this project will not have a significant impact on the marine environment.

**G) Recommendation:**

DECC OGED is content that there are no environmental or navigational objections to approval of the proposals, and has advised DECC LED that there are no objections to the grant of the relevant consents.

**Approved :** *Sarah Pritchard*.....

Sarah Pritchard - Head of Environmental Operations Unit

**Date:** *07/10/2013*.....