

Marathon Petroleum Company (Norway)

Alvheim Gas Export Pipeline

Background

The Alvheim oil and gas field is located in the Norwegian sector. Approval was given by the Norwegian government in October 2004 to develop the field using tankers to export the oil and with the installation of a pipeline to export the gas to the UK. The UK section of the 14" diameter pipeline will be approximately 27.4 kilometres long, crossing four existing pipelines and tying into the Scottish Area Gas Evacuation (SAGE) pipeline, terminating at St. Fergus, from where it will enter the UK National Gas Transmission System.

Route selection considered three potential export options and two potential tie-in points to the SAGE system. A review of the options took account of the findings of a geotechnical and habitat survey while considering the availability, commercial, and technical issues associated with tying into existing gas export infrastructure. The proposed pipeline route is the most direct to an existing Tee on the SAGE system, crossing four existing pipelines. The Alvheim pipeline will tie in to SAGE at an existing tee by means of a tie-in skid, which will be secured to the seabed by driven piles.

The four pipeline crossings will be constructed to ensure that the specified minimum separation of approximately 300mm is maintained between the new and the existing pipelines. Following installation of the new pipeline over the prepared crossings, a layer of rock will be placed over all. Strength and leak tests will be conducted to facilitate leak detection.

The EIA identified the following impacts which were considered potentially significant and required further investigation:-

Physical presence and disturbance

Interaction with other sea-users

The ES considered these points in detail and we are satisfied that the ES addresses the impacts from the proposed development and overall no significant environmental impacts have been identified.

A full survey report confirmed that there were no indications of pockmarks or other Annex 1 habitats along the proposed route.

The pipeline will be laid from a dynamically positioned reel ship, so there will be no impacts from anchors on the seabed. Skid inspection, installation and fixing operations are expected to take less than 1 day.

The pipeline will be trenched for the majority of its length to afford protection from impact or interaction with fishing equipment, to improve stability and to mitigate against upheaval buckling. There may be the requirement to supplement sediment backfill with rock placement over one or more short sections of the line. Flexible concrete mattresses will also be placed at tie-in approaches to provide protection.

Recommendation

Overall the environmental statement is satisfactory and adequately assesses the potential environmental impacts of the proposed development. It is recommended that consent is given to the project.