

# Environment Agency permitting decisions

## Variation

We have decided to issue the variation for Theddlethorpe Gas Terminal operated by Conocophillips (UK) Limited.

The variation number is [EPR/LP3933LX/V004](#)

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

## Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

## Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation, web publicising and newspaper advertising responses

## Key issues of the decision

The variation relates primarily to the cleaning and flushing of the pipeline that connects the offshore Viking production platforms to the terminal. This activity forms part of the overall decommissioning program for the Viking assets. As a result of the decommissioning programme additional, temporary, release points to air and a temporary increase in the total volume of effluent discharged to the North Sea is required. A second element is to permit the use of three new chemicals that are utilised within the day to day production operations at the terminal.

Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist, the application and supporting information and permit/ notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on commercial confidentiality.	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.</p> <p>Copies of the Application were sent to the following Consultees:</p> <ul style="list-style-type: none"> <li>• Director of Public Health – Lincolnshire County Council.</li> <li>• Regulatory Services – East Lindsey District Council</li> <li>• Food Standards Agency</li> <li>• Health and Safety Executive</li> <li>• Marine Management Organisation</li> <li>• Public Health England</li> </ul>	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
<b>Operator</b>		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on what a legal operator is.	✓

Aspect considered	Justification / Detail	Criteria met Yes
<b>European Directives</b>		
Applicable directives	All applicable European directives have been considered in the determination of the application. Specifically the Industrial Emissions Directive 2010/75/EU	✓
<b>The site</b>		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including discharge points and temporary release points to air.</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p> <p>A localised site plan is provided in the Application Documents which details the temporary plant and equipment locations.</p>	✓
Site condition report	<p>The operator has provided a description of the condition of the site in their original application. There is no change to the SCR as a result of this variation.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat .</p> <p>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The Applicant has carried out short term modelling of the impacts of the proposed emissions to air associated with the two temporary vents. At the proposed height of discharge there will be sufficient dispersion of the hydrocarbon gases and Nitrogen releases so as not to cause any issues at ground level in respect of health and safety and	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>environmental impact. The increased flow rate, from 2,200m<sup>3</sup>/day to 4,400m<sup>3</sup>/day will have an insignificant impact upon the marine environment. The Permit limits the discharge of hydrocarbon oils to 15mg/l over a 24 hour averaging period and the increased flow rate is only anticipated to be 3 days. At the location of the discharge point good distribution within the near mixing zone is expected.</p> <p>The three new chemicals have been developed a part of a process to reduce the environmental impacts of the chemicals used on site, to improve performance over existing chemicals or to help maintain processing capabilities of the terminal.</p> <p>The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment all emissions may be categorised as environmentally insignificant.</p>	
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. The pipeline cleaning and flushing activity forms part of the overall decommissioning program for the Viking assets.</p> <p>In accordance with the Guidance Notes: Decommissioning of Offshore Oil and Gas Installations and Pipelines under the Petroleum Act 1998 (DECC Guidance Notes) a pipeline comparative assessment was undertaken. The assessment is designed to investigate the feasible pipeline decommissioning options and identify the preferred option when considering the criteria technical feasibility and risk of operational failure, environmental risk offshore, onshore and atmospheric compartments, socioeconomic risk and cost.</p> <p>As a result of this assessment the preferred option is to decommission pipe lines in-situ. The permit variation Application details the steps that are required, and the mitigations in place, to allow the 28" Viking trunk line to be cleaned and flushed to an agreed standard whilst minimising the impacts to the environment.</p> <p>Pipeline cleaning and flushing will be completed using a series of pigging "trains". These will be followed with a sea water flush that will reduce the oil in water levels to &lt;30 ppm and the pipe line will then be left.</p> <p>The cleaning process will result in the terminal receiving</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>the liquids that still remain in the pipeline, these are the same type of fluids that are processed every day on the terminal and these will be processed through the existing permitted activities. All chemicals used in the cleaning process will be retained in storage vessels on site and will be subsequently sent for offsite disposal, they will not be discharged to the environment.</p> <p>Two temporary vents will be required to vent the small quantities of methane that remain in the pipeline and also the nitrogen gas that will be used to propel the pigging trains. The other main change to the permit will be a temporary increase in effluent volume from 2,200 m<sup>3</sup>/day to 4,400 m<sup>3</sup>/day. This is to account for the large volume of flush water that will be required. This is described in more detail in the Application Documents where the environmental control measures are also described.</p> <p>The total programme duration, for the cleaning and flushing is predicted to take between 4 to 6 weeks, this includes the time to process the fluids that are received on site. However, the increase in the limit for effluent volume will only be required for an estimated 3 – 6 days.</p> <p>The programme and controls described in this permit variation will be a discrete operation with the amended limits and vents only being required for the short duration of the programme. Following the programme all temporary equipment used will be removed and limits revert back to those that exist in the permit as it is currently written.</p> <p>The proposed techniques emission levels for priorities for control are in line with the benchmark levels contained in the TGN and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs, and ELVs deliver compliance with BAT-AELs.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>	
<b>The permit conditions</b>		
Use of conditions other than those from the template	<p>Based on the information in the application, we consider that we need to impose conditions other than those in our permit template, which was developed in consultation with industry having regard to the relevant legislation.</p> <p>Temporary limits and release points have been included in the relevant permit conditions and tables including a</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	condition that requires the Operator to notify the Environment Agency in writing of the beginning and end of the “abnormal” operations and specific monitoring requirements.	
Raw materials	<p>We have specified limits and controls on the use of raw materials and fuels.</p> <p>The second element to this variation is to formally authorise three new production chemicals. These have been developed a part of a process to reduce the environmental impacts of the chemicals used on site, to improve performance over existing chemicals or to help maintain processing capabilities of the terminal. The requirements and impacts of these are described in more detail in the Application Documents.</p> <p>The first chemical is a corrosion inhibitor that offers better performance than the existing chemical that is used and is also less harmful to the environment.</p> <p>The second chemical is a flocculent that will assist the terminal in the management of the fluids received. These fluids can contain very fine particulate that causes processing issues on site and can ultimately shut down the terminal. The flocculent would be used on an “as needed” basis rather than continually dosed and is designed to assist the fine particles to settle out of suspension faster and allow clean fluids to be processed. This chemical has 2 components that carry the H411 hazard phrase however these have very high lowPow values that mean the chemicals will not partition to the water phase and hence not be released to the North Sea.</p> <p>The third chemical is an oxygen scavenger that forms part of the suite of corrosion protection measures used at the terminal. The new oxygen scavenger is a faster acting chemical that will ensure that oxygen in process fluids is reduced to the target level more quickly thus offering better protection to process vessels and pipework.</p>	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Emission limits	<p>We have decided that emission limits should be set for the parameters listed in the permit.</p> <p>Whilst the variation increases the total volume of effluent discharge to the North Sea via an existing discharge point there is to be no change to the concentration limits of pollutants already covered by Emission Limit Values in the Permit.</p>	✓
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>	✓
Reporting	<p>We have specified reporting in the permit.</p> <p>The Operator is required, in addition to the existing reporting requirements set in the Permit, to notify the Environment Agency of the beginning and end of each phase of the pipeline cleaning and flushing programme and report on the monitored flow rate of the effluent discharge to the North Sea.</p>	✓
<b>Operator Competence</b>		
Environment management system	<p>There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.</p>	✓
Financial provision	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent Operator is.</p>	✓

## Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process. (Newspaper advertising is only carried out for certain application types, in line with our guidance.)

<b>Response received from</b>
Public Health England
<b>Brief summary of issues raised</b>
The main emissions of concern are from increased quantities of methane and nitrogen released to atmosphere during the proposed works. Dispersion modelling has been undertaken for the release of methane and the nitrogen and this demonstrates that the plumes will disperse to atmosphere and not cause ground level impacts.
<b>Summary of actions taken or show how this has been covered</b>
Based on the information contained in the application, Public Health England has no significant concerns regarding the risk to the health of the local population from the installation.