

Recd From:

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Bellanaboy Bridge Terminal
Environmental Impact Statement

Date Recd:

methane would have been 20/04/07
regardless if the peat remained in situ. Any release
with global warming potential during peat removal
will hence be insignificant.

14.3.2 Operation

During operation, terminal emissions will comprise:

- releases of carbon dioxide from combustion processes to provide energy to the terminal; and
- fugitive emissions of natural gas.

The principal combustion processes include the gas compressors to pressurise sales gas into the national distribution network and power generators to provide electricity to the site. A heater unit will also be present to refine and recycle methanol used as an anti-freeze within the onshore and offshore facilities.

Fugitive emissions may occur from non-permanent connections such as valves and flanges. Potential fugitive release sources and appropriate mitigation measures have been described further in Section 14.6

Significant hydrocarbon emissions are not anticipated as a result of routine operation. In the event of emergencies or abnormal operating conditions natural gas and hydrocarbon releases will be efficiently burnt at height. The design incorporates numerous safety features to prevent the loss of natural gas. They include relief valves, flare systems and emergency shutdown (ESD) valves to prevent the generation of potentially flammable leaks and hence loss to air in the unlikely event of an overpressure in the system or equipment failure.

14.4 Potential Impact of the Proposed Development

The terminal development will result in emissions associated with climate change. This includes releases of carbon dioxide and natural gas and to a much lesser extent, other hydrocarbon compounds.

14.5 Do Nothing Scenario

In the absence of the development, there will be no anticipated change in releases to air at the terminal Location. However, the potential benefits of the Corrib development for control of greenhouse gases in Ireland generally will also not be realised.

5 Mitigation Measures

14.6.1 Initial Design Considerations

The gas terminal has been designed to minimise combustion products and fugitive releases. These measures will minimise releases to air with global warming potential.

Combustion processes have been designed to be energy efficient and minimise the quantity of fuel used, thereby minimising releases of carbon dioxide. Hydrocarbon condensate that would otherwise require offsite disposal is also used as a fuel for the heating medium fired heater.

A leak of natural gas from the process presents a flammable risk. Inherent site safety features will minimise the potential for uncontained releases of natural gas to air. Such features include continuous welded pipelines to ensure a sealed system from the arrival of offshore gas to the distribution of sales gas. The terminal will be constructed to international design standards. *

Pressure relief valves designed to prevent overpressure in the system will be additional sources of fugitive releases. Low leakage relief valves have been considered in the design of the terminal. Should a significant leak or venting of natural gas occur from the valves, the gas will be collected and flared, thereby converting natural gas into carbon dioxide, which has a much lower GWP.

Onsite heating requirements will be met by the combustion of off-spec gas or hydrocarbon condensate.

14.6.2 During Operation

Combustion efficiency checks will be carried out on combustion plant to ensure all plant operates at optimum efficiency.

Fugitive emissions of natural gas will be minimised through regular maintenance and the implementation of the Environmental Management Plan that will be prepared as part of the site's Integrated Pollution Control (IPC) licence issued by the Environmental Protection Agency (EPA). A maintenance flare will also combust gas where depressurisation of the plant is required for maintenance activities. In the highly unlikely event of a significant leak of natural gas into the air in the vicinity of plant, gas detection systems will identify any leak, which will then be remedied by onsite technicians.