Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

ConocoPhillips (UK) Limited

Theddlethorpe Gas Terminal
Theddlethorpe St Helen
Mablethorpe
Lincolnshire
LN12 1NQ

Variation application number

EPR/LP3933LX/V004

Permit number

EPR/LP3933LX

Theddlethorpe Gas Terminal
Permit number EPR/LP3933LX

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

This variation is raised to facilitate the cleaning and flushing of the pipeline that connects the offshore Viking production platforms to the Theddlethorpe Gas Terminal. This activity forms part of the overall decommissioning program for the Viking assets.
The preferred option is to decommission the pipe lines in-situ. 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 are; Pipeline cleaning and flushing which 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 <30 ppm and the pipe line will then be left flooded. The cleaning process will result in the terminal receiving 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.
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 m3/day to 4,400 m3/day. This is to account for the large volume of flush water that will be required.
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. The actual timing programme is to be agreed in writing with the Environment Agency before commencement of the cleaning and flushing of the pipeline and the Operator is also required to notify the Environment Agency once the programme is complete.

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. To this end, only the amended conditions and Tables specified in Schedule 1 of the Variation Notice and included in the accompanying Consolidated Permit relate to the cleaning and flushing of the pipeline. Following the programme all temporary equipment used at the site will be removed and all conditions and limits revert back to those that exist in the "normal" Conditions and Tables of the Consolidated Permit.

The second element to this variation is to formally authorise three new production chemicals as a permanent change. These have been developed as 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 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. 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. 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.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/LP3933LX (EPR/LP3933LX/A001)	Received 31/07/06	
Additional information received	03/08/06	
Application EPR/LP3933LX	Duly made 03/08/06	
Permit determined	23/05/07	
Agency variation determined EPR/LP3933LX/V002	29/05/13	Agency variation to implement the changes introduced by IED
Variation application (EPR/LP3933LX/V003)	Duly made 22/07/15	Change from Freon to Propane Refrigeration System
Variation determined (EPR/LP3933LX/V003	Issued 02/10/15	
Application EPR/LP3933LX/V004 (variation and consolidation)	Duly made 25/07/16	Application to vary the permit to include temporary emissions to air and increased effluent discharge flow rate during pipeline decommissioning and cleaning. Also the introduction of three new process chemicals.
Variation determined EPR/LP3933LX (Billing Ref: TP3734DM)	24/10/2016	Varied and consolidated permit issued.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/LP3933LX

Issued to

ConocoPhillips (UK) Limited ("the operator")

whose registered office is

Portman House
2 Portman Street
London
W1H 6DU

company registration number 00524868

to operate a regulated facility at

Theddlethorpe Gas Terminal
Theddlethorpe St Helen
Mablethorpe
Lincolnshire
LN12 1NQ

to the extent set out in the schedules.

The notice shall take effect from 24/10/2016

Name	Date
J Linton	**24/10/2016**

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of the application made by the operator:

- 2.3.3
- 2.3.4
- 3.1.1
- 3.1.3
- 3.5.1
- Table S1.2
- Table S1.4A
- Table S2.1
- Table S3.1 (a)
- Table S3.2 (a)

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/LP3933LX

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/LP3933LX/V004 authorising,

ConocoPhillips (UK) Limited ("the operator"),

whose registered office is

Portman House
2 Portman Street
London
W1H 6DU

company registration number 00524868

to operate an installation/part of an installation at

Theddlethorpe Gas Terminal
Theddlethorpe St Helen
Mablethorpe
Lincolnshire
LN12 1NQ

to the extent authorised by and subject to the conditions of this permit.

Name	Date
J Linton	**24/10/2016**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.3 The Operator shall notify the Environment Agency in writing of the start and finish dates of a pipeline decommissioning programme. During the pipeline cleaning and flushing process point source emissions to water and air listed in schedule 3 tables S3.1 (a) and S3.2 (a) shall apply.

2.3.4 The Operator shall record the beginning and end of each phase of a pipeline decommissioning programme where temporary emission points or limits listed in schedule 3 tables S3.1 (a) and S3.2(a) are used.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.

2.5.2 The operations specified in schedule 1 table S1.4B shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, and S3.2 except during a pipeline decommissioning

programme, when there shall be no point source emissions to water, air or land except from the sorces and emission points listed in schedule 3 tables S3.1, S3.1 (a), S3.2 and S3.2 (a).

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Where a substance is specified in schedule 3 table S3.2 and S3.2 (a) but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1, S3.1 (a), S3.2 and S3.2 (a).;

(b) ambient air monitoring specified in table S3.3;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production /treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
S1.2A(1)(a)	Refining gas where this is likely to involve the use of 1000 tonnes or more of gas in any period of 12 months	Receipt of raw gas through to despatch of refined product.
S1.1 A1 (a)	Burning any fuel in an appliances with an aggregated rated thermal input of 50 Megawatts or more.	Gas turbine compressor, gas turbine generators, ground flares and hot oil heaters.
Directly Associated Activity		
Storage and handling of raw materials	Storage tanks, drum & IBC storage and storage of other containers.	Tank farms, drum stores and warehouses, including associated abatement or environmental protection provision.
Storage and handling of products	Storage tanks, drum & IBC storage and storage of other containers.	Tank farms, drum stores and warehouses, including associated abatement or environmental protection provision.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application LP3933LX (EPR/LP3933LX/A001)	Section B2.1 and B2.12 in the Application	31/07/06
Variation application EPR/LP3933LX/V003	Section 3 and 4 of the Environmental permit application document	Duly made 22/07/15
Variation application EPR/LP3933LX/V005	Section 2 Temporary increase to effluent discharge volume, temporary use of filtration skid and temporary use of two vent points.	Duly made 25/07/16
Variation application EPR/LP3933LX/V005	Section 3 Use of two improved chemicals, an oxygen scavenger and corrosion inhibitor and one new chemical, a flocculent in the production process.	Duly made 25/07/16

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1 to IC19	-	Completed

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
1	At least 4 weeks before commencing commissioning of any new equipment required to achieve compliance with the requirements of the Air Quality Standard for Benzene the operator shall submit a commissioning plan for the new equipment.
2	At least 4 weeks before commencing commissioning of any new equipment required to reduce flaring rates the operator shall submit a commissioning plan for the new equipment.
3 The cleaning and flushing of the pipeline that connects the offshore production platforms to the Theddlethorpe Gas Terminal	Prior to processing flush waters from the pipeline, the temporary filter skid is to be pre-commissioned using the Terminal's effluent under normal operating conditions to measure and demonstrate the efficiency of the filter to remove Hydrocarbon Oil from the effluent. The Operator shall report the results in writing to the Environment Agency prior to passing effluent with an unabated concentration of less than 100mg/l to the filter, to allow the Emission Limit Value in Table S3.2 (a) of this Permit to be set by the Environment Agency.

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1	Export gas for onshore storage in the Saltfleetby gas field.	At least 4 months before commencing commissioning of any new equipment required to export gas to the Saltfleetby (onshore) gas field the operator shall submit a commissioning plan for the new equipment.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Fuel oil on P 101C	Less than 0.1% sulphur content.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method[(1)]**
A1	NO_X as NO_2	Thermal Oil Heater W-101	350 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
A2	NO_X as NO_2	Thermal Oil Heater W-201	350 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
A3	NO_X as NO_2	Gas Turbine Generator P-101A	125 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
A4	NO_X as NO_2	Gas Turbine Generator P-101B	125 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
A5	NO_X as NO_2	Gas Turbine Generator P-101C	125 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
	SO_X as SO_2		No limit is set	-	-	-
A6	NO_X as NO_2	Gas Turbine Compressor P-251	125 mg/m^3	Time average of at least 10 minutes	Monthly at least three weeks apart	In house method to CP-SEQ-515 appendix B
A7	NO_X as NO_2	Ground Flare W-360	No limit is set	-	-	-
A8	Hydrocarbon	HP Vent Stack 19-1401	Hydrocarbon	-	-	-
A9	Hydrocarbon	LP Vent Stack W-102	No limit is set	-	-	-
A10	NO_X as NO_2	Instrument air compressor (diesel standby generator)	No limit is set	-	-	-
A11	NO_X as NO_2	Firewater pumps (diesel	No limit is set	-	-	-

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method(1)**
		standby generator)				
A12	NO_X as NO_2	Diesel standby generator	No limit is set	-	-	-
A13	No parameters set	Ground Flare	No limit is set	-	-	-

Note 1: Or as agreed in writing with the Environment Agency.

Table S3.1(a) Temporary Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
TV1 Located on the Viking sphere receiver bypass line around the existing Pressure Safety Valve.	Hydrocarbon	Residual gas from the sphere receiver.	No limit is set	-	-	-
TV2 Located on top of the Viking slug catcher	Hydrocarbon	Residual hydrocarbon gas from the flushing of pipeline	No limit is set	-	-	-
TV2 Located on top of the Viking slug catcher	N_2	Nitrogen used to propel the pig trains	No limit is set	-	-	-

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method(1)**
W1	Methanol	Site liquid effluent from TS	2000 mg/l	-	Daily spot sample	Headspace sampling and Gas Chromatography
			2000 mg/l	Average of 24 hour composite	No less than 1 per month	Headspace sampling and

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method[(1)]**
						Gas Chromatography
	Hydrocarbon oils		100 mg/l	-	Daily spot sample	Solvent extraction and infra-red Spectroscopy
			15/mg/l	Average of 24 hour composite	No less than 1 per month	
	Flow		2,200 m^3/day	24 hour	Continuous	Magflow meter
	Cadmium		0.22 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Mercury		0.04 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Iron		500 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Zinc		120 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Manganese		100 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Lead		12 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Nickel		1.0 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Copper		0.2 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Chromium		0.3 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Arsenic		0.2 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Amine		No limit is set. Note. Condition 3.1.3 does not apply	Average of 24 hour composite	No less than 1 per month	ASTM D 2327 - 68
	Phenol		No limit is set. Note. Condition 3.1.3 does not apply	Average of 24 hour composite	No less than 1 per month	BS EN ISO 14402

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method(1)**
W2 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W3 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W4 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W5 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W6 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W7 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W8 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure
W9 – Local Drain	Hydrocarbon oils	Storm water	Substantially free from visible hydrocarbon oil	-	Daily	Visual Check Site Procedure

Note 1. Or as agreed in writing with the Environment Agency

Table S3.2 (a) Temporary Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method(1)**
W1	Methanol	Site liquid effluent from TS	2000 mg/l	-	Daily spot sample	Headspace sampling and Gas Chromatography
			2000 mg/l	Average of 24 hour composite	No less than 1 per month	Headspace sampling and Gas Chromatography
	Hydrocarbon oils		100 mg/l	-	Daily spot sample	Solvent extraction and infra-red Spectroscopy
			TBA note 2	Average of 24 hour composite	Daily	
	Flow		4,400 m^3/day	24 hour	Continuous	Turbine flow meter on the discharge of the filtration skid

Table S3.2 (a) Temporary Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method(1)**
	Cadmium		0.22 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Mercury		0.04 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Iron		500 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Zinc		120 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Manganese		100 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Lead		12 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Nickel		1.0 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Copper		0.2 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Chromium		0.3 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Arsenic		0.2 mg/l	Average of 24 hour composite	No less than 1 per month	ISO 15586 and ISO 15587
	Amine		No limit is set. Note. Condition 3.1.3 does not apply	Average of 24 hour composite	No less than 1 per month	ASTM D 2327 - 68
	Phenol		No limit is set. Note. Condition 3.1.3 does not apply	Average of 24 hour composite	No less than 1 per month	BS EN ISO 14402

Note 1. Or as agreed in writing with the Environment Agency

Note 2. Limit to be agreed in writing with the Environment Agency after the completion of pre-operating condition Reference 3.

Table S3.3 Ambient air monitoring requirements				
Location or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Site boundary	Benzene	Continuous	As agreed with the Environment Agency	

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.5.1. (monthly results)	A1, A2, A3, A4, A5 and A6	Every 6 months	1 January 1 July
Emissions to air Parameters as required by condition 3.5.1. (annual results)	Site boundary Benzene (annual average)	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1 (monthly results)	W1	Every 6 months	1 January 1 July

Table S4.2: Annual production/treatment	
Parameter	**Units**
Gas exported	MSCM

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Gas usage	Annually	Tonnes
Electricity usage	Annually	MJ

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air 1	Form air 1 or other form as agreed in writing by the Environment Agency	23/05/2007
Air 2	Form air 2 or other form as agreed in writing by the Environment Agency	23/05/2007
Water 1	Form water 1 or other form as agreed in writing by the Environment Agency	23/05/2007
Water 2	Form water 2 or other form as agreed in writing by the Environment Agency	23/05/2007
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	23/05/2007
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	23/05/2007
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	23/05/2007

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	**EPR/LP3933LX**
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

"*accident*" means an accident that may result in pollution.

"annually" means once a year

"*application*" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"*authorised* officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"background concentration" means such concentration of that substance as is present in:

1. for emissions to surface water, the surface water quality up-gradient of the site; or
2. for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"emissions to land" includes emissions to groundwater

"*EP Regulations*" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"fugitive emissions" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"*groundwater*" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"*notify without delay*" and "*notified without delay*" means that a telephone call can be used, whereas all other notifications must be supplied in writing, either electronically or on paper.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

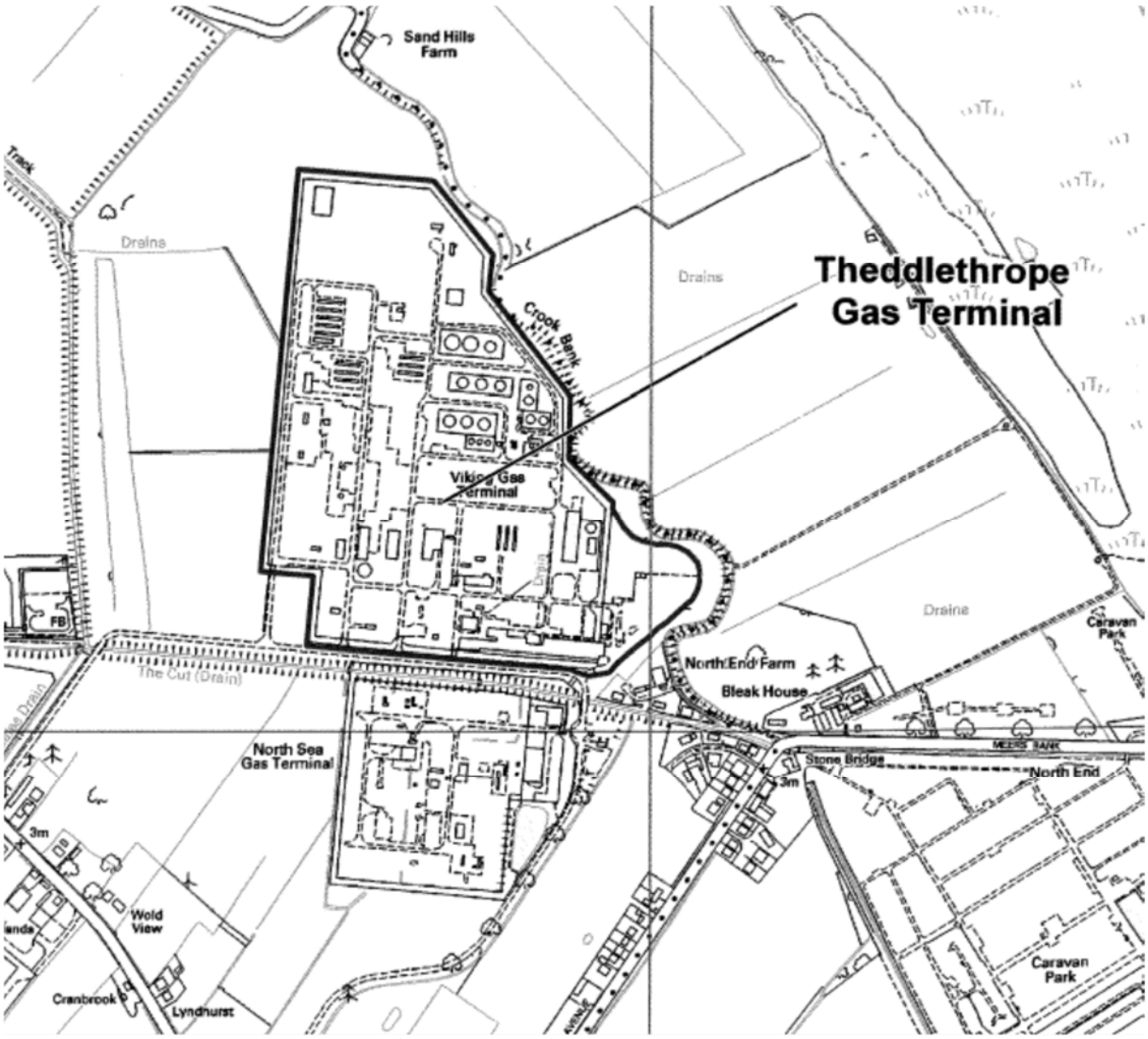
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

"year" means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT