



# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2010

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ConocoPhillips Petroleum Company UK Ltd.

Teesside Crude Oil Stabilisation Terminal  
Seal Sands  
Middlesbrough  
TS2 1UH

### **Variation application number**

EPR/NP3033LN/V005

### **Permit number**

EPR/NP3033LN

# Teesside Crude Oil Stabilisation Terminal

## Permit number EPR/NP3033LN

### 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 that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made and contains all conditions relevant to this permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

As well as implementing Chapter III of IED, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises all conditions to reflect the conditions contained in our current combustion permit template.

The Operator has chosen to operate this LCP under the ELV compliance route. This is a change from the previous operating regime which was operated under National Emissions Reduction plan (NERP).

The variation notice uses an updated LCP number in accordance with the most recent DEFRA LCP reference numbers. The LCP references have changed as follows:

- LCP 28 is changed to LCP 62

The proposed operation of the site has also been updated from variation number V003 to remove references to the building of a Liquid Natural Gas terminal (LNG) and storage facility as requested in a variation submitted by the operator (allocated V006). Within V006 the operator has also requested a reduction in boiler stack height for LCP 62 from 76m to 45.5m and the inclusion of an updated site plan, both of these requests will be assessed within the separate variation V006 as they require a more detailed assessment.

The rest of the installation and its proposed update to include CHP units are unchanged and continues to be operated as follows:

The main features of the installation are related to crude oil stabilisation and combustion process.

#### The Combustion process:

Three gas turbines and three steam boilers which form one integrated steam raising plant.

Six crude oil stabilisation “reboilers”.

The three gas turbines (each 31.2 MW net thermal input) drive propane compressors in the propane refrigeration system which forms part of the crude oil stabilisation plant described below. The pass out gases from the turbines have a high oxygen content (16%) and are normally routed to the steam boilers as part of the combustion air supply. In the event of unavailability of the steam boilers the pass-out gases can also be vented to atmosphere via 3 x 18 metre standby stacks. This however is an infrequent event.

The three steam boilers (each 104 MW net thermal input) raise process steam for the crude oil stabilisation plant. Each boiler discharges to one of two shared 76m metre high forming one LCP.

The feed water treatment plant associated with the steam boilers is included in this permit.

The six “reboilers” (Nos 2 to 7 inclusive) are 40 MW net rated thermal input and heat crude oil as part of the crude oil stabilisation plant. Each “reboiler” discharges to a dedicated 61 metre stack (No.1 “reboiler” has been dismantled and No2 reboiler retired from duty but will remain as a viable spare).

The gas turbines operate on a high pressure fuel consisting mainly of ethane. The boilers and reboilers are fuelled by, a mixture of methane, ethane, propane and butane. Both fuels are derived from the stabilisation and fractionation process. Natural Gas is available as a back-up fuel in the event that inadequate plant fuel is produced. There are no fuel storage facilities and no abatement plant associated with the process.

The concentration of carbon monoxide and oxides of nitrogen in the releases from the “reboilers” are continuously monitored. Sulphur dioxide releases are determined from the sulphur content of the mixture of fuels fed to the reboilers. The concentration of carbon monoxide, sulphur dioxide, particulates, and oxides of nitrogen in the releases from the boiler stacks are measured continuously.

### The Crude Oil Stabilisation Process

The process is a crude oil stabilisation plant in which light hydrocarbons such as methane, ethane, propane and butane - termed Natural Gas Liquids (NGLs) – and contaminant water are removed from crude oil in a large-scale continuous plant. The stabilised crude and the separated, purified NGLs are then exported both locally by pipeline and by ship for further processing and use. The process has been operating since 1975 and had a nominal design throughput of 1 million barrels of crude per day. The current and projected future maximum throughputs do not exceed about 850,000 barrels of crude per day. Since 1998, segregated NGLs have been imported from the Teesside Gas Processing Plant (TGPP) (previously BP CATS gas terminal) for further processing and export using the established routes and processes permitted here.

The process contains seven main sections as follows:-

Crude Oil receipt and storage – inc. North Sea pipeline from the first onshore isolation valve and 4 storage spheres

Oil Stabilisation Trains -6 parallel streams containing washing; heating; degassing, cooling and compression units

NGL Plant – inc. distillation; cooling; compression; purification and storage units.

Product export – inc. metering stations; pipelines from the Seal Sands Terminal to the Greatham

Tank Farm and for export; ship loading jetties.

VOC Recovery Plant – The VOC vapours emitted from oil tankers during crude loading are collected. The unit uses a carbon bed absorption system to remove the VOC’s from the ships vapour stream.

Effluent treatment – inc. storage for untreated ballast water & process waste waters; plate separators; dissolved air flotation and chemical dosing (peroxide & flocculants). The final effluent is pumped to a third party for final (biological) treatment prior to discharge to the river Tees.

Combined Heat and Power (CHP) Plant - The new combined heat and power plant has not currently been built (added in V003) but will provide electrical power and steam to the crude oil stabilisation process replacing that currently provided by the grid and the existing combustion plant. The existing combustion plant will however continue to operate until the new combined heat and power plant comes available and will be retained as a back-up facility thereafter.

The CHP will provide electricity to the existing oil terminal and the National Grid; and steam to the oil terminal and other adjacent local industrial users.

The electricity generating part of the power plant will comprise 2 x 278 MW gas turbine generators, with 2 x 150 MW steam turbines, with auxiliary duct firing between the gas turbine and steam boilers to maximise steam production. Steam will also be available for use within the Oil terminal replacing steam currently generated by less efficient boilers. However these will remain available as stand by capacity. Connection of the electrical output to the National Grid will be via a new overhead transmission line of approximately 1.5Km. The CHP Plant is intended to be operational 365 days per year, 24 hours per day.

The operator's Environment Management System is externally accredited to ISO 14001:2004.

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.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application received EPR/NP3033LN/A001	Duly made 07/07/06	
Additional information request (ASR)	03/01/07	19/01/07
Permit determined EPR/NP3033LN	01/05/07	Permit issued to ConocoPhillips Petroleum Company UK Ltd.
Variation determined EPR/NP3033LN/V002 (PAS Billing ref: ZP3239XX)	20/12/07	
Variation application EPR/NP3033LN/V003	Duly made 23/07/07	
Variation determined (PAS Billing ref: QP3732UN)	10/02/11	
Agency variation determined EPR/NP3033LN/V004 (PAS Billing ref: GP3438NL)	29/05/13	Environment Agency initiated variation to implement the changes introduced by IED
Regulation 60 Notice sent to the Operator	31/10/14	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	05/02/15	Response received from the Operator.
Additional information received	19/05/15	Response to request for further information (RFI) dated 13/05/15.
Receipt of additional information to the application	18/11/15	Variation application received to update: 1. Removal of references to LNG plant Updated with Reg 60(1) Notice.
Additional information received	27/11/15	Response to request for further information (RFI) dated 27/11/15.
Additional information received	01/12/15	Response to request for further information (RFI) dated 30/11/15.
Variation determined EPR/NP3033LN/V005 (Billing ref: HP3734AZ)	24/12/15	Varied and consolidated permit issued in modern condition format for IED Variation effective from 01/01/16.

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>
RWE nPower Cogen	EPR/RP3130LN	26/03/07

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/NP3033LN**

### Issued to

**ConocoPhillips Petroleum Company UK Ltd.** (“the operator”)

whose registered office is

**Portman House  
2 Portman Street  
London  
W1H 6DU**

company registration number 792712

to operate part of a regulated facility at

**Teesside Crude Oil Stabilisation Terminal  
Seal Sands  
Middlesbrough  
TS2 1UH**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Anne Nightingale	24/12/2015

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation apart from the following conditions which were varied as a result of the application made by the operator:

Table S1.1 Activities, references to Liquid Natural Gas terminal (LNG) removed.

Table S1.3 Improvement programme requirements, references to LNG plant removed.

Table S1.4 Pre-operational measures for future development, references to LNG plant removed.

Table S2.1 Raw materials and fuels, references to Liquefied Natural Gas and terminal off gas (TOG) removed

Table S3.1 Point source emissions to air, removal of reference to A24 to A33, A34, A35 and A36 and associated notes

Table S4.1 Reporting of monitoring data, removal of emission points A24 to A32

Table S4.2 Annual production/treatment, removal of natural gas offloaded at LNG terminal and natural gas supplied to National Transmission System

Table S4.3 Chapter III performance parameters for reporting to Defra and other performance parameters, removal of terminal off gas usage

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/NP3033LN**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/NP3033LN/V005 authorising,

**ConocoPhillips Petroleum Company UK Ltd.** (“the operator”),

whose registered office is

**Portman House  
2 Portman Street  
London  
W1H 6DU**

company registration number **792712**

to operate part of an installation at

**Teesside Crude Oil Stabilisation Terminal  
Seal Sands  
Middlesbrough  
TS2 1UH**

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

<b>Name</b>	<b>Date</b>
<b>Anne Nightingale</b>	<b>24/12/2015</b>

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) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
- (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (d) 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;
- (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.

## **1.5 Multiple operator installations**

- 1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operators of the installation of the same information.

## **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; the area edged in red represents the extent of the activities undertaken by the other operator of the installation.

### **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 For the following activities referenced in schedule 1, table S1.1: A1 (LCP 62). Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the “Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines” revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 For the following activities referenced in schedule 1, table S1.1: A1 (LCP 62). The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5
- 2.3.6 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.7 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;

- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.8 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.3.9 The use of natural gas for supplementary firing of the in-duct burner shall not be permitted when distillate fuel oil is being used to fire the gas turbine.

## **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 operations specified in schedule 1 table S1.4 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, S3.2 and S3.3.

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

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

## **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 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 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.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **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.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **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, S3.2 and S3.3;
- (b) process monitoring specified in table S3.4.

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 continuous), 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, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

## **3.6 Monitoring for the purposes of the Industrial Emissions Directive Chapter III**

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.
- 3.6.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.6.7, the operator shall:
- (a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the Environment Agency for approval, proposals for measures to improve the reliability of the continuous measurement systems, including a timetable for the implementation of those measures; and
  - (b) implement the approved proposals.
- 3.6.3 Continuous measurement systems on emission points from the LCP shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.6.4 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.6.5 below, the operator shall carry out the methods, including the reference measurement methods, to use and calibrate continuous measurement systems in accordance with the appropriate CEN standards.
- 3.6.5 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.
- 3.6.6 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.
- 3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3, table S3.1; the Continuous Emission Monitors shall be used such that:
- (a) for the continuous measurement systems fitted to the LCP release points defined in Table S3.1 the validated hourly, monthly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval;
  - (b) the 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%;
  - (c) the 95% confidence interval for dust releases of a single measured result shall be taken to be 30%;
  - (d) the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
  - (e) an invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing; and
  - (f) any day, in which more than three hourly average values are invalid shall be invalidated.

## 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, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

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

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.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

## 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 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit 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:

- (c) any change in the operator's name or address; and
- (d) 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 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

## **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 without delay, in which case it may be provided by telephone.



# Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 1.1 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<p>LCP 62: 3x31.2 MWth gas turbines and 3x104 MWth boilers for production of steam.</p> <p>6 x 40MWth reboilers for heating crude oil</p> <p>2 x auxiliary boilers</p> <p>2 x 278 MWe gas turbines with 2 x 150 MWe steam turbines</p>	<p>From receipt of process gas/ natural gas to discharge of exhaust gases and the generation of steam.</p> <p>From receipt of process gas to discharge of exhaust gases.</p> <p>Combustion of natural gas from storage or the National Transmission System for the supply of steam.</p> <p>Combustion of natural gas from storage or the National System for the generation of electricity and supply of steam.</p>
A2	Section 1.2 A(1) (h) (i): Gasification, Liquefaction and Refining Activities.	Handling and processing crude oil	Main Terminal activity is the stabilisation of crude oil
A3	Section 1.2 A(1) (h) (ii): Gasification, Liquefaction and Refining Activities	Handling and processing crude oil	Stabilised crude storage, loading and handling of stabilised crude petroleum via jetties 1, 2, 4 & 5 and export pipeline

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
A4	Section 1.2 A(1) (h) (iv): Gasification, Liquefaction and Refining Activities	Handling and processing crude oil	NGL Distillation, NGL Storage and NGL Tanker loading via Jetties 3, 4, 6 & 8 and two export pipelines
A5	5.3 A(1)(a)(ii): Disposal of hazardous waste in a facility (other than landfill or incineration) with a capacity of more than 10 tonnes per day	Physio-chemical treatment of wastes containing oil (ballast water)	On-site ETP
A6	Section 5.4 A(1) (a) (ii): Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day	Physio-chemical treatment of wastes containing oil (ballast water)	On-site ETP - Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by physico-chemical treatment.
A7	Section 5.4 A(1) (a) (ii): Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day	Physico-chemical treatment of waste waters and storage of sludge	On-site ETP - Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by physico-chemical treatment.
<b>Directly Associated Activity</b>			
A8	Non-listed directly associated activity:	CHP cooling tower system	-
A9	Non-listed directly associated activity:	CHP heat recovery generators	-
A10	Non-listed directly associated activity:	CHP steam turbines	-
A11	Non-listed directly associated activity:	CHP water treatment plant	-

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to section 2.1 and 2.2 in the Application	07/07/06
Receipt of additional information to the application	Further data provided for Biofilter monitoring and all release points	01/12/06
Receipt of additional information to the application	Use of Biocat system for waste treatment, as in information received.	14/12/06
Schedule 4 Notice Request dated 04/01/07	Application Site Report assessment questions	19/01/07
Variation application	The response to Section C2.1 in the application	23/07/07

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance route and operating techniques identified in response to questions 2 (compliance route), 4 (LCP configuration), 5 (net rated thermal input), 6 (MSUL/MSDL), 9ii (ELVs), 11 (Monitoring requirements).	Received 05/02/15
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 13/05/15	Compliance routes and operating techniques identified in response to questions 4 (LCP configuration), 5 (net rated thermal input), 6 (MSUL/MSDL) 9 (justification of ELVs and MSUL/MSDL)	Received 19/05/15
Receipt of additional information to the application	Variation application received to update: 2. Removal of references to LNG plant Updated with Reg 60(1) Notice.	18/11/15

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP1	<p>A written procedure shall be submitted to the agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the operator from the date of approval in writing by the Agency</p>	Complete
IP2	<p>A written plan shall be submitted to the Agency for approval detailing the results of a survey of bunding, hard-standing, kerbing and secondary containment for raw material, intermediate, product and waste storage areas and the measures to comply with the requirements of the Sector Guidance Note S 1.02. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The plan shall be implemented by the operator from the date of approval by the Agency.</p>	Complete
IP3	<p>The Operator shall implement a formal procedure for the inspection and subsequent maintenance of underground tanks, drains and collection sumps with the purpose of preventing fugitive releases to ground, and to meet the requirements of section 2.2. of Sector Guidance Note S 1.02. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>A copy of the procedure shall be submitted to the Agency.</p>	Complete

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP4	The operator shall establish a procedure for timely replacement of unmade surfaces in vulnerable locations e.g. Earth drainage ditches, earth bunds, gravel areas especially where there is storage, unloading and loading of materials, overhead pipelines etc. to meet the requirements of section 2.2. of Sector Guidance Note S 1.02. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. A copy of the procedure shall be submitted to the Agency	Complete
IP5	The operator shall establish a formal pipework and pipeline integrity management programme with the purpose of preventing fugitive releases to comply with the requirements of the Sector Guidance Note S 1.02. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. A copy of the procedure shall be submitted to the Agency.	Complete
IP6	A written plan shall be submitted to the Agency for approval detailing the measures to be taken to achieve flow proportional sampling of the process effluent release at W1 / S1. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. The plan shall be implemented by the operator from the date of approval by the Agency.	Complete
IP7	The operator shall establish a site closure plan having regard for the Agency Sector Guidance Note IPPC S1.02, section 2.11. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. A copy of the plan shall be submitted to the Agency.	Complete
IP8	The operator shall measure and verify the design performance of the VOC Recovery Unit (release point A19). The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. Progress report to be submitted to the Agency  A copy of the final report shall be submitted to the Agency.	Complete  Complete
IP9	The operator shall measure and verify the emission of Oxides of Sulphur to atmosphere on completion of the Flare recovery project. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. A copy of the plan shall be submitted to the Agency.	Complete
IP10	The operator shall notify the Agency of the date when the commissioning of the CHP is complete.	Within 7 days of completion
IP11	The Operator shall provide a post commissioning report to the Agency. The report shall include a review of the operational performance of the CHP against the design parameters in the application. A review of process performance and emissions performance shall be included in the report.	Within 3 months of the date notified in IP10

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP12	The Operator shall submit a report on the efficiency of the gas turbine at ISO base load conditions. The report shall compare the performance of the gas turbine with the target efficiency of 75% for CHP systems set out in Chapter III of the Industrial Emission Directive.	Within 3 months of the date notified in IP10
IP13	The Operator shall carry out measurements to verify the predictions contained within the application for Environmental Noise.	Within 12 months of the date notified in IP10
IP14	The Operator shall provide a report on its progress on the implementation and accreditation of its Environmental Management System ISO14001, together with an action plan should accreditation not have been achieved.	Within 12 months of the date notified in IP10
IP15	The Operator shall update the air quality impact assessment submitted with the application to take account of actual emissions from the installation taken from emissions monitoring data form the first 12 months of operation.	Within 15 months of the date notified in IP10
IC16	For LCPD LCP 28 (now LCP 62 under IED). Annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LPCD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry.	28/01/16
IC17	<p>The operator shall provide a report in writing to the Environment Agency for acceptance which provides the net rated thermal input for LCP 62 (3 x 31.2 MW Gas Turbines and 3 x 104 MW boilers). The net rated thermal input is the 'as built' value unless the plant has been modified significantly resulting in an improvement of the plant efficiency or output that increases the rated thermal input (which typically requires a performance test to demonstrate that guaranteed improvements have been realised).</p> <p>Evidence to support this figure, in order of preference, shall be in the form of:-</p> <ul style="list-style-type: none"> <li>a) Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes),</li> <li>b) Performance test results after a significant modification (quoting the specified standards or test codes),</li> <li>c) Manufacturer's contractual guarantee value,</li> <li>d) Published reference data, e.g., Gas Turbine World Performance Specifications (published annually);</li> <li>e) Design data, e.g., nameplate rating of a boiler or design documentation for a burner system;</li> <li>f) Operational efficiency data as verified and used for heat accountancy purposes,</li> <li>g) Data provided as part of Due Diligence during acquisition,</li> </ul> <p>*Performance test results shall be used if these are available.</p>	31/12/16

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC18	<p>The Operator shall submit a report in writing to the Environment Agency for acceptance. The report shall define and provide a written justification of the “minimum start up load” and “minimum shut-down load”, for LCP 62 (3 x 31.2 MW Gas Turbines and 3 x 104 MW boilers) as required by the Implementing Decision 2012/249/EU in terms of:</p> <ul style="list-style-type: none"> <li>i. The output load (i.e. electricity, heat or power generated) (MW); and</li> <li>ii. This output load as a percentage of the rated thermal output of the combustion plant (%).</li> </ul> <p>And / Or</p> <ul style="list-style-type: none"> <li>iii. At least three criteria (operational parameters and / or discrete processes as detailed in the Annex) or equivalent operational parameters that suit the technical characteristics of the plant, which can be met at the end of start-up or start of shut-down as detailed in Article (9) 2012/249/EU.</li> </ul>	31/03/16
IC19	<p>The operator shall submit a report in writing to the Environment Agency detailing the emissions of Oxides of Nitrogen to air from the LCP when operating on 100% natural gas. The report shall include</p> <ul style="list-style-type: none"> <li>a) Historical data, performance test data or manufacturer’s data; and</li> <li>b) Data obtained under current operational conditions</li> </ul> <p>The Environment Agency shall be advised at earliest opportunity should it not be possible to carry out the trialling specified under b) by the completion date.</p>	30/09/16

<b>Table S1.4 Pre-operational measures for future development</b>		
<b>Reference</b>	<b>Operation</b>	<b>Pre-operational measures</b>
PO1	The Operator shall submit a report to the Agency detailing the proposals for the commissioning programme of the CHP, including proposals to ensure that adequate monitoring is undertaken to prevent pollution.	12 months prior to the start of commissioning of the CHP facilities.
PO2	The Operator shall carry out a review of the final plans prior to the construction to ensure these still accurately reflect those set out in the application and PP permit. The Operator shall submit a report to the Agency detailing the findings of this review.	12 months prior to the start of commissioning of the CHP facilities.
PO3	The Operator shall submit proposals to ensure safe access to key equipment required to minimise the risk of pollution in the event of flooding.	12 months prior to the start of commissioning of the CHP facilities.
PO4	The Operator shall carry out a review of the accident management plan (maintained under permit condition 1.1.1 (a)) and take any appropriate measures identified by the review. A report on the review shall be submitted to the Environment Agency.	6 months prior to the start of commissioning of the CHP facilities.

<b>Table S1.4 Pre-operational measures for future development</b>		
<b>Reference</b>	<b>Operation</b>	<b>Pre-operational measures</b>
PO5	The Operator shall carry out a review of the site closure plan (maintained under permit condition 2.7.2) and take any appropriate measures identified by the review. A report on the review shall be submitted to the Environment Agency.	3 months prior to the start of commissioning of the CHP facilities.
PO6	The Operator shall carry out a review of the site protection and monitoring programme (maintained under permit condition 2.8.2) and take any appropriate measures identified by the review. A report on the review shall be submitted to the Environment Agency.	3 months prior to the start of commissioning of the CHP facilities.
PO7	The Operator shall submit a report establishing a protocol for the measurements and calculation of overall energy efficiency of (i) the CHP, (including the conversion to electricity) and (ii) the installation as a whole. The protocol shall take account of energy lost through fugitive emissions and flaring.	3 months prior to the start of commissioning of the CHP facilities.
PO8	The Operator shall notify the Agency of the date when fuel will first be burnt in the CHP / New Boiler Plant.	No later than 2 weeks prior to the fuel being burnt
PO9	Operations shall not commence on the CHP facilities, until the operator has submitted a report in writing to the Environment Agency for approval, demonstrating compliance with Chapter III of the Industrial Emissions Directive, and has obtained written approval from the Environment Agency.	12 months prior to the start of commissioning of the CHP

<b>Table S1.5 Start-up and Shut-down thresholds</b>		
<b>Emission Point and Unit Reference</b>	<b>“Minimum Start-Up Load” When two of the criteria listed below for the LCP or unit have been met.</b>	<b>“Minimum Shut-Down Load” When two of the criteria listed below for the LCP or unit have been met.</b>
A8 & A9 LCP 62	≥31.083 MW (30% MCR) Superheated steam in at 55.5 Barg Superheated steam temperature 427 °C (Subject to outcome of IC18)	<31.083 MW (30% MCR) Superheated steam in at <55.5 Barg Superheated steam temperature <427 °C (Subject to outcome of IC18)

## Schedule 2 – Waste types, raw materials and fuels

<b>Table S2.1 Raw materials and fuels</b>	
<b>Raw materials and fuel description</b>	<b>Specification</b>
Crude oil	No limits as crude oil is not used as a fuel
Plant fuel gas	Less than 200 ppm sulphur (monthly average)
Distillate Fuel Oil	Equivalent to 0.1% sulphur or less
Liquid Nitrogen	

<b>Table S2.2 Permitted waste types and quantities for receipt and treatment of ballast water</b>	
<b>Maximum quantity</b>	<b>N/A</b>
<b>Waste code</b>	<b>Description</b>
16 07 08	Wastes containing oil (ballast water)



## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A8 & A9	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas</b>	300 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A8 & A9	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas</b>	300 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A8 & A9	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas</b>	300 mg/m <sup>3</sup>	Hourly average	Continuous	BS EN 14181
A8 & A9	Carbon Monoxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas</b>	70 mg/m <sup>3</sup>	Hourly average	Continuous	BS EN 14181
A8 & A9	Sulphur Dioxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	35 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A8 & A9	Sulphur Dioxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	38.5 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A8 & A9	Sulphur Dioxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	50 mg/m <sup>3</sup>	Hourly averages	Continuous	BS EN 14181
A8 & A9	Dust	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	5 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A8 & A9	Dust	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	5 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A8 & A9	Dust	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/natural gas</b>	5 mg/m <sup>3</sup>	Hourly average	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A8 & A9 (See IC19)	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	100 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A8 & A9 (See IC19)	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	110 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A8 & A9	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	200 mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A8 & A9	Carbon Monoxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	100 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A8 & A9	Carbon Monoxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	110 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A8 & A9	Carbon Monoxide	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>natural gas</b>	200 mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A8 & A9	Oxygen	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/ natural gas</b>	-	-	Continuous As appropriate to reference	BS EN 14181
A8 & A9	Water Vapour	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/ natural gas</b>	-	-	Continuous As appropriate to reference	BS EN 14181
A8 & A9	Stack gas temperature	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/ natural gas</b>	-	-	Continuous As appropriate to reference	Traceable to national standards
A8 & A9	Stack gas pressure	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/ natural gas</b>	-	-	Continuous As appropriate to reference	Traceable to national standards
A8 & A9	As required by the Method Implementation Document for BS EN 15259	LCP No. 62 (x 3 gas turbines and x 3 boilers) fired on <b>process gas/ natural gas</b>	-	-	Pre-operation and when there is a significant operational change	BS EN 15259

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A2, A3, A4, A5, A6 & A7	Oxides of Nitrogen (NO and NO2 expressed as NO2)	Low NOx burners on Stabilisation train Reboiler Exhaust	300mg/m <sup>3</sup> Note 1	Hourly Average	Continuous	BS EN 4181 Note 2
A2, A3, A4, A5, A6 & A7	Carbon Monoxide	Low NOx burners on Stabilisation train Reboiler Exhaust	70mg/m <sup>3</sup> Note 1	Hourly Average	Continuous	BS EN 14181 Note 2
A2, A3, A4, A5, A6 & A7	Sulphur Dioxide	Low NOx burners on Stabilisation train Reboiler Exhaust	50 mg/m <sup>3</sup> Note 1	-	Calculated	-
A11	Oxides of Nitrogen (NO and NO2 expressed as NO2)	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency
A11	Carbon Monoxide	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency
A12	Oxides of Nitrogen (NO and NO2 expressed as NO2)	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency
A12	Carbon Monoxide	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency

**Table S3.1 Point source emissions to air**

<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)-these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A13	Oxides of Nitrogen (NO and NO2 expressed as NO2)	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency
A13	Carbon Monoxide	Gas Turbine Standby stack fired on <b>process gas/natural gas</b>	No limit set Note 1	-	Concentration by calculated every 4380 hours or 2 years whichever soonest	As agreed in writing with the Environment Agency
A16	Sulphur Dioxide	122m elevated flare stack (normal operation)	No limit set Note 1	-	Calculated monthly	-
A17	Sulphur Dioxide	82m elevated flare stack (Standby)	No limit set Note 1	-	Calculated monthly	-
A18	Hydrogen Sulphide	Effluent Treatment Plant (ETP)	No limit set Note 1	-	-	-
A18	Benzene	Effluent Treatment Plant (ETP)	No limit set Note 1	-	-	-
A19	Volatile Organic Compounds (VOC)	VOC recovery unit	No limit set Note 1	-	-	-
A19	Benzene	VOC recovery unit	No limit set Note 1	-	-	-
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	150 mg/m3 Notes 1 & 2 Note 3	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	300 mg/m3 Notes 1 & 2 Note 3	Hourly limit Note 7	Continuous	BS EN 15267-3 Note 2

<b>Table S3.1 Point source emissions to air</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)-these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A22 & A23	Carbon Monoxide	Auxiliary Boiler Exhaust 1 & 2	150 mg/m3 Notes 1 & 2 Note 3	Periodic over min 4 hour period	Every 6 months Note 8	BS EN 15058
A22 & A23	Sulphur Dioxide	Auxiliary Boiler Exhaust 1 & 2	No limit Notes 1 & 2 Note 3	-	-	-
A22 & A23	Dust	Auxiliary Boiler Exhaust 1 & 2	No limit Notes 1 & 2 Note 3	-	-	-
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	200 mg/m3 Notes 1 & 2 Note 4	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	400 mg/m3 Notes 1 & 2 Note 4	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A22 & A23	Carbon Monoxide	Auxiliary Boiler Exhaust 1 & 2	150 mg/m3 Notes 1 & 2 Note 4	Periodic over min 4 hour period	Every 6 months Note 8	BS EN 15058
A22 & A23	Sulphur Dioxide	Auxiliary Boiler Exhaust 1 & 2	35 mg/m3 Notes 1 & 2 Note 4	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Sulphur Dioxide	Auxiliary Boiler Exhaust 1 & 2	70 mg/m3 Notes 1 & 2 Note 4	Hourly limit Note 7	Continuous	BS EN 15267-3 Note 2
A22 & A23	Dust	Auxiliary Boiler Exhaust 1 & 2	5 mg/m3 Notes 1 & 2 Note 4	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Dust	Auxiliary Boiler Exhaust 1 & 2	10 mg/m3 Notes 1 & 2 Note 4	Hourly limit Note 7	Continuous	BS EN 15267-3 Note 2

**Table S3.1 Point source emissions to air**

<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)-these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	200 mg/m3 Notes 1 & 2 Note 5	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Oxides of Nitrogen (No and NO2 expressed as NO2)	Auxiliary Boiler Exhaust 1 & 2	400 mg/m3 Notes 1 & 2 Note 5	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A22 & A23	Carbon Monoxide	Auxiliary Boiler Exhaust 1 & 2	150 mg/m3 Notes 1 & 2 Note 4	Periodic over min 4 hour period	Every 6 months Note 8	BS EN 15058
A22 & A23	Sulphur Dioxide	Auxiliary Boiler Exhaust 1 & 2	Sulphur content of fuel <0.1% Notes 1 & 2		By calculation	
A22 & A23	Dust	Auxiliary Boiler Exhaust 1 & 2	30 mg/m3 Notes 1 & 2 Note 5	Daily limit Note 6	Continuous	BS EN 15267-3 Note 2
A22 & A23	Dust	Auxiliary Boiler Exhaust 1 & 2	60 mg/m3 Notes 1 & 2 Note 5	Hourly limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Oxides of Nitrogen (No and NO2 expressed as NO2)	Gas turbine exhaust stacks 1 & 2	50 mg/m3 Notes 9,10 & 12	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2
A20 & A21	Oxides of Nitrogen (No and NO2 expressed as NO2)	Gas turbine exhaust stacks 1 & 2	100 mg/m3 Notes 9, 10 & 13	Daily Limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Carbon Monoxide	Gas turbine exhaust stacks 1 & 2	100 mg/m3 Notes 9 & 10	Periodic over min 4 hour period	Every 6 months Note 8	BS EN 15058
A20 & A21	Sulphur Dioxide	Gas turbine exhaust stacks 1 & 2	10 mg/m3 Notes 9 & 10	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2



<b>Table S3.1 Point source emissions to air</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)-these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A20 & A21	Sulphur Dioxide	Gas turbine exhaust stacks 1 & 2	20 mg/m3 Notes 9 &10	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Dust	Gas turbine exhaust stacks 1 & 2	10 mg/m3 Notes 9 &10	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2
A20 & A21	Dust	Gas turbine exhaust stacks 1 & 2	20 mg/m3 Notes 9 &10	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Oxides of Nitrogen (No and NO2 expressed as NO2)	Gas turbine exhaust stacks 1 & 2	120 mg/m3 Notes 9 &11	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2
A20 & A21	Oxides of Nitrogen (No and NO2 expressed as NO2)	Gas turbine exhaust stacks 1 & 2	240 mg/m3 Notes 9 &11	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Carbon Monoxide	Gas turbine exhaust stacks 1 & 2	100 mg/m3 Notes 9 &11	Periodic over min 4 hour period	Every 6 months Note 8	BS EN 15058
A20 & A21	Sulphur Dioxide	Gas turbine exhaust stacks 1 & 2	66 mg/m3 Notes 9 &11	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2
A20 & A21	Sulphur Dioxide	Gas turbine exhaust stacks 1 & 2	132 mg/m3 Notes 9 &11	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2
A20 & A21	Dust	Gas turbine exhaust stacks 1 & 2	10 mg/m3 Notes 9 &11	Daily Limit Note 6	Continuous	BS EN 15267-3 Note 2
A20 & A21	Dust	Gas turbine exhaust stacks 1 & 2	20 mg/m3 Notes 9 &11	Hourly Limit Note 7	Continuous	BS EN 15267-3 Note 2

Note 1: Normalised to 273k, 101.3 kPa, dry and 3% v/v O2 dry gas

Note 2: The Operator shall carry out checks for functionality and to verify performance as specified in BS EN 14181:2005 unless otherwise agreed in writing with the Environment Agency.

Note 3: Natural Gas Firing

Note 4: TOG firing

Note 5: DFO firing

Note 6: Daily average of validated hourly averages not to exceed limit

Note 7: 95% of validated hourly averages not to exceed limit

Note 8: Except that the plant shall not be run just for the purpose of emission monitoring

Note 9: Normalised to 273k, 101.3 kPa, dry and 15% v/v O2 dry gas

Note 10: Natural Gas Firing with TOG duct firing

Note 11: DFO firing with TOG or Natural Gas duct firing

Note 12: 75 mg/m3 where the overall efficiency on the CHP is greater than 75%

Note 13: 150 mg/m3, where the overall efficiency of the CHP is greater than 75%

<b>Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b> Note 1	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b> Note 2	<b>Monitoring standard or method</b> Note 3
W1 on site plan in schedule 7	Total hydrocarbon oil content (FTIR method)	Effluent Treatment Plant	20 mg/l	Composite flow proportional sample	24hr average	FTIR
W1 on site plan in schedule 7	Chemical Oxygen Demand (COD)	Effluent Treatment Plant	12 te/day	Composite flow proportional sample	24hr average	Titrimetric
W1 on site plan in schedule 7	Sulphide	Effluent Treatment Plant	10 mg/l	Composite flow proportional sample	24hr average	Colormetric
W1 on site plan in schedule 7	Total suspended solids	Effluent Treatment Plant	100 mg/l	Composite flow proportional sample	24hr average	Gravimetric
W1 on site plan in schedule 7	Metals	Effluent Treatment Plant	No limit set	Monthly composite sample	Monthly	ICP
W1 on site plan in schedule 7	pH	Effluent Treatment Plant	5.5 – 9	Composite flow proportional sample	24hr average	pH meter
W1 on site plan in schedule 7	Temperature	Effluent Treatment Plant	No limit set	24hr average	Continuous	Thermocouple
W1 on site plan in schedule 7	Flow	Effluent Treatment Plant	18,000 m3/day	24hr average	Continuous	Flowmeter

<b>Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b> Note 1	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b> Note 2	<b>Monitoring standard or method</b> Note 3
W2 on site plan in schedule 7	Total hydrocarbon oil content (FTIR method)	Greatham Surge Pond	20 mg/l	24hr average	24hr average	FTIR
W2 on site plan in schedule 7	Visible oil and grease	Greatham Surge Pond	No visible emission		Daily	Visual
W2 on site plan in schedule 7	Flow	Greatham Surge Pond	10,800 m <sup>3</sup> /day	24hr average	Continuous	Flowmeter

Note 1: Emissions only to occur under abnormal or emergency conditions when effluent cannot be recovered or treated.

Note 2: Monitoring not required during periods of no flow.

Note 3: Methods used are in house methods as stated in Table 2.10 (b) of the IPPC application.

<b>Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 on site plan in schedule 7 emission to Northumbrian Water Bran Sands Treatment Facility	Flow	Site effluent treatment plant	No limit set Note 1	24 hr average	Continuous	Flowmeter
	Other parameters	Site effluent treatment plant	No limit set Note 1	-	-	-

Note 1: Although no limits are set, discharge is subject to a trade effluent consent.

<b>Table S3.4 Process monitoring requirements</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
A18 – ETP (Effluent Treatment Plant)	Hydrogen Sulphide	Monthly	Gas Chromatography (Limit is 75% removal of parameter from inlet stream)	Does not apply during shell renewal
A18 – ETP (Effluent Treatment Plant)	Benzene	Monthly	Gas Chromatography (Limit is 75% removal of parameter from inlet stream)	Does not apply during shell renewal

## Schedule 4 – Reporting

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

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Oxides of nitrogen	LCP 62	Every 3 months for continuous monitoring	1 January, 1 April, 1 July, 1 October
Carbon Monoxide	LCP 62	Every 3 months for continuous monitoring	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	LCP 62	Every 3 months for continuous monitoring	1 January, 1 April, 1 July, 1 October
Dust	LCP 62	Every 3 months for continuous monitoring	1 January, 1 April, 1 July, 1 October
Oxides of nitrogen	A2 to A7	Every 6 months	1 January, 1 July
Carbon Monoxide	A2 to A7	Every 6 months	1 January, 1 July
Sulphur dioxide	A2 to A7	Every 6 months	1 January, 1 July
Hydrogen Sulphide	A18	Every 6 months	1 January, 1 July
Benzene	A18	Every 6 months	1 January, 1 July
Volatile Organic Compounds (VOC)	A19	Every 12 months	1 January
Benzene	A19	Every 12 months	1 January
Sulphur dioxide	A20 to A23	Every 6 months	1 January, 1 July
Particulates	A20 to A23	Every 6 months	1 January, 1 July
Oxides of nitrogen	A20 to A23	Every 6 months	1 January, 1 July
Carbon Monoxide	A20 to A23	Every 6 months	1 January, 1 July
Sulphur dioxide	A20 to A23	Every 6 months	1 January, 1 July
Particulates	A20 to A23	Every 6 months	1 January, 1 July
Flow <sup>Note 1</sup>	S1, W1 & W2	Every 6 months	1 January, 1 July
Total hydrocarbon oil content (FTIR method) <sup>Note 1</sup>	S1, W1 & W2	Every 6 months	1 January, 1 July
Chemical Oxygen Demand (COD) <sup>Note 1</sup>	W1	Every 6 months	1 January, 1 July
Sulphide <sup>Note 1</sup>	W1	Every 6 months	1 January, 1 July
Total suspended solids <sup>Note 1</sup>	W1	Every 6 months	1 January, 1 July
Metals <sup>Note 1</sup>	W1	Every 6 months	1 January, 1 July
pH <sup>Note 2</sup>	W1	Every 6 months	1 January, 1 July
Temperature <sup>Note 1</sup>	W1	Every 6 months	1 January, 1 July
Number of hours of non-zero flow	W1 & W2	Every 6 months	1 January, 1 July

Note 1: Average and maximum values

Note 2: Average, minimum and maximum values

Parameter	Units
Power generated	GWhr
Crude oil stabilised	Tonnes
NGL produced	Tonnes

Parameter	Frequency of assessment	Units
Thermal Input Capacity for each LCP	Annually	MW
Annual Fuel Usage for each LCP	Annually	TJ
Total Emissions to Air of NO <sub>x</sub> for each LCP	Annually	t
Total Emissions to Air of SO <sub>2</sub> for each LCP	Annually	t
Total Emissions to Air of dust for each LCP	Annually	t
Operating Hours for each LCP	Annually	hr
Natural gas usage <sup>Note 1</sup>	Annually	t
Distillate fuel oil usage	Annually	t
Total available energy <sup>Note 2</sup>	Annually	MJ
Net electricity <sup>Note 3</sup>	Annually	MWh
Total mass release of oxides of sulphur (as SO <sub>2</sub> ) to air	Annually	T
Total mass release of oxides of nitrogen ( as No <sub>2</sub> ) to air	Annually	T
Total mass release of volatile organic carbon to air	Annually	T
Total mass release of particulate matter to air	Annually	T
Water usage	Annually	M <sup>3</sup>
Overall energy efficiency of the CHP <sup>Note 4</sup>	Annually	%

Note 1: Natural Gas usage shall be calculated as the quantity of gas drawn from the public supply. It shall comprise both the gas burnt in the CHP or boiler plant and any losses to atmosphere or flaring.

Note 2: Available energy shall be calculated by summing the usage of each fuel multiplied by its calorific value.

Note 3: Net Electricity shall be the amount of electricity consumed at the installation, i.e. the amount generated plus the amount imported from the National Grid less the amount exported to the National Grid.

Note 4: Energy efficiency shall be calculated using the protocol agreed in pre-operation condition 7.

<b>Table S4.4 Reporting forms</b>				
<b>Media/ parameter</b>	<b>Reporting format</b>	<b>Starting Point</b>	<b>Agency recipient</b>	<b>Date of form</b>
Air & Energy	Form IED AR1 – SO <sub>2</sub> , NO <sub>x</sub> and dust mass emission and energy	01/01/16	National	31/12/15
LCP	Form IED HR1 – operating hours	01/01/16	National	31/12/15
Air	Form IED CON 1 – continuous monitoring.	01/01/16	Area Office	31/12/15
CEMs	Form IED CEM – Invalidation Log	01/01/16	Area Office	31/12/15
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15
Water	Form water 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15
Air	Form Air – 2 continuous monitoring or other form as agreed in writing by the Environment Agency	27/11/04	Area Office	
Air	Form Air – 3 continuous measurement systems invalidation log or other form as agreed in writing by the Environment Agency	27/11/04	Area Office	
Air	Form Air – 4 NERP allocation log or other form as agreed in writing by the Environment Agency (See IC16)	01/01/08	Area Office	
Air	Form Air – 7 Energy Usage summary or other for as agreed in writing by the Environment agency	01/01/04	Area Office	
Air	Form Air – 8 PPC non LCP vent monitoring or other form as agreed in writing by the Environment Agency	Permit issue	Area Office	

# 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/NP3033LN
Name of operator	ConocoPhillips Petroleum Company UK Ltd
Location of Facility	Seal Sands, Middlesbrough, TS2 1UH
Time and date of the detection	

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

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator



## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“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:  
for emissions to surface water, the surface water quality up-gradient of the site.

“base load” means: (i) as a mode of operation, operating for >4000hrs pa; and (ii) as a load, the maximum load under ISO conditions that can be sustained continuously, i.e. maximum continuous rating.

“calendar monthly mean” means the value across a calendar month of all validated hourly means.

“CEN” means Comité Européen de Normalisation.

“Combustion Technical Guidance Note” means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

“disposal”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“DLN” means dry, low NO<sub>x</sub> burners.

“Energy efficiency” the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

“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.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are 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.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“MCR” means maximum continuous rating.

“MSDL” means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

“MSUL” means minimum start-up load as defined in Implementing Decision 2012/249/EU.

“Natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“ncv” means net calorific value.

“operational hours” are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

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

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

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 gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or

In relation to emissions from combustion processes comprising a gas turbine providing air to a steam boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% dry for liquid and gaseous 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.

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

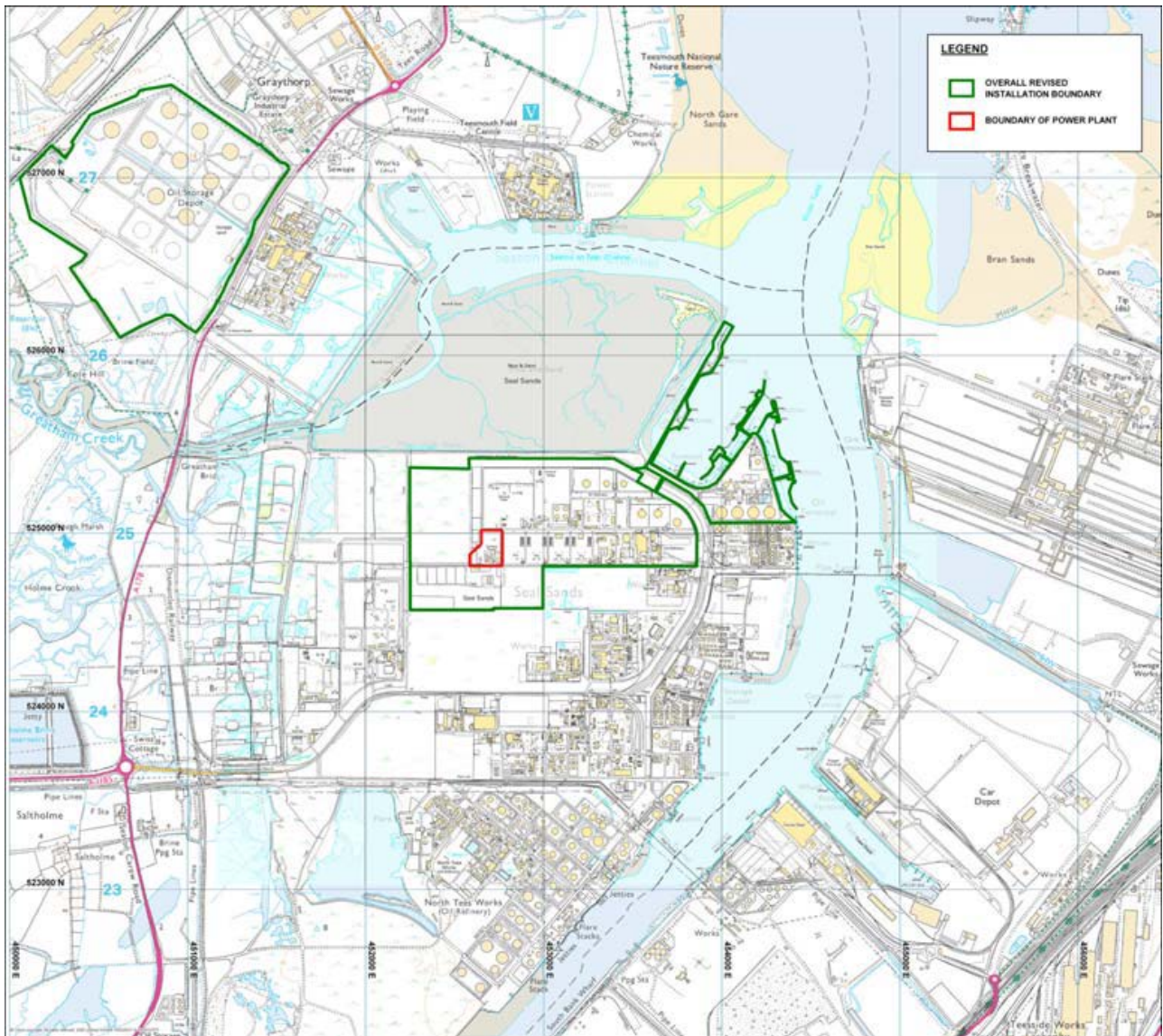
“notify without delay” / “notified without delay” means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

“site protection and monitoring programme” means a document which meets the requirements for site protection and monitoring programmes described in the Land Protection Guidance.

CEM means MCERTs certified Continuous Emissions Monitor

# Schedule 7 – Site plan

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END OF PERMIT