



# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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RWE Generation UK PLC  
Seal Sands Power Station  
North South Access Road  
Seal Sands  
Middlesbrough  
TS2 1FB

### **Variation application number**

EPR/CP3939QN/V002

### **Permit number**

EPR/CP3939QN

# Seal Sands Power Station

## Permit number EPR/CP3939QN

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations (EPR) 2016 (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.

#### **Purpose of this variation (EPR/CP3939QN/V002):**

This variation is required to assess the permit for compliance with the revised Best Available Techniques (BAT) Conclusions for the LCP sector published on 17 August 2017 including the incorporation of relevant BAT Associated Emission Levels (AELs) into the permit.

#### Review permit conditions

Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on BAT Conclusions. We have reviewed the permit for this installation against the revised BAT Conclusions for the LCP sector published on 17 August 2017. Only activities covered by this BAT Reference Document have been reviewed and assessed.

#### Key changes made as a result of the permit review:

This variation makes the key changes set out below following the permit review under Article 21(3) of the IED:

- Compliance with BAT Conclusions 2 and 40 addressed by improvement condition IC5;
- Compliance with BAT Conclusion 9 for the use of low pressure fuel gas addressed by pre-operational condition 2.5.1 and associated table S1.3a;
- Compliance with BAT Conclusion 42 addressed by the addition of table S1.5 for dry low NO<sub>x</sub> effective definition and corresponding improvement condition IC7;
- Revised emission limits and monitoring requirements for emissions to air applicable from the BAT Conclusions implementation date, 17 August 2021, in table S3.1a; and
- Inclusion of process monitoring for energy efficiency in table S3.3.

### **Additional key changes in accordance with IED Chapter II requirements:**

- Permit condition 1.2.2 added requiring the periodic review of the viability of combined heat and power (CHP);
- Permit condition 2.3.7 has been included in the permit with corresponding improvement condition IC4 requiring the operator to submit a report in relation to potential black start operation of the plant;
- Table S1.1 amended to update listed activity description with a gas oil generator;
- Table S1.2 amended to add AST/QAL2 requirements during periods of low operational use;
- Improvement condition IC6 added to address compliance with IED chapter III/annex V limits;
- Table S2.1 amended to add natural gas;
- Table S3.1 amended to change the hourly average reference period in accordance with IED chapter III/annex V requirements;
- Table S3.2 amended to include inspection of oil at emission point S1; and
- Table S4.3 amended to include low pressure fuel gas.

Schedule 2 of the notice comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

### **Chapter III/Annex V variation (EPR/RP3130LN/V002):**

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the EPR 2016. This permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the IED, already implements the special provisions for LCP given in the IED. The IED makes special provisions for LCP under Chapter III and contains emission limit values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

The Operator chose to operate LCP270 under the emission limit value (ELV) compliance route.

### **The rest of the installation is unchanged and continues to be operated as follows:**

RWE Generation UK PLC are permitted to operate a power station at Seal Sands at national grid reference NZ 5272 2487.

The site is situated in an area dominated by heavy industry which includes oil and gas processing as well as chemicals manufacture and pharmaceutical manufacture. The nearest centres of population are located at Haverton Hill / Port Clarence situated approximately 4.5 kilometres south west of the site. The nearest Site of Special Scientific Interest (SSSI) and European site, Special Protection Area (SPA) is the Teesmouth and Cleveland Coast, located directly adjacent to the site boundary.

The installation falls under the following IED Schedule 1 listed activity description:

**Section 1.1 Part A(1)(a)** – Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts.

The power station is a LCP, identified as LCP270 with a thermal input of 130.28 MW, producing electricity. It comprises a combined cycle gas turbine (CCGT), heat recovery steam generator (HRSG), steam turbine and hybrid cooling. It is fuelled on natural gas, and also has the facility to burn low pressure fuel gas.

The low pressure fuel gas is from the adjacent ConocoPhillips Crude Oil Stabilisation Terminal and is supplied via a piped and above ground installation located to the west of the site.

Natural gas is received via a piped supply from the main gas transmission grid. The plant exports steam and electricity to the ConocoPhillips site and where energy surplus, electricity to the main electrical grid. At the time of variation EPR/CP3939QN/V002, the site was operated minimally to meet grid demands. There is potential to return the site to full combined heat and power (CHP) and supply a customer with steam.

A small gas-oil starting device is used for gas turbine start-up and there is an emergency gas-oil generator which is capable of black start should supply of electricity from the grid not be available.

There is an emission point to air (A1) which is associated with the release of exhaust gases from the HRSG stack which is 50 metres in height. The main pollutants of combustion are carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>). Sulphur dioxide (SO<sub>2</sub>) levels are not considered to pose a significant problem given that the gaseous fuels used are inherently low in sulphur. Dry low NO<sub>x</sub> (DLN) burners are fitted to the gas turbine unit.

There are no direct discharges of liquid emissions from the site to the environment. Non-hazardous liquid emissions (surface water drainage and cooling water blow-down) are collected and pumped to the effluent treatment facilities at the adjacent ConocoPhillips site (emission point S1). Flows from the installation are combined with those generated by the ConocoPhillips site following which the effluent is subjected to primary and secondary and treatment. The treated effluent is then sent to the Bran Sands sewage treatment plant and further treated prior to being discharged to the River Tees. There are no emissions to groundwater from the installation.

The site is not part of a voluntary climate change agreement, however, the site does participate in the European Union Emissions Trading Scheme.

Activities at the installation are managed at the site through various management systems with environmental issues managed through an Environment Management System (EMS) which is externally certified to ISO 14001.

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/RP3130LN/A001	25/07/2006	Duly made.
Additional information received	18/12/2006	
Permit determined EPR/RP3130LN	26/03/2007	Permit issued to npower Cogen Limited.
Regulation 60 Notice sent to the Operator	31/10/2014	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	31/03/2015	Response received from the Operator.
Additional information received	06/07/2015	Response to request for further information dated 12/06/2015.
Additional information received	16/12/2015	Confirmation of compliance routes for the LCP.
Variation determined EPR/RP3130LN/V002	21/12/2015	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.
Notified of change of company name	12/07/2016	Name changed to RWE Cogen UK Limited.
Variation issued EPR/RP3130LN/V003	19/09/2016	Varied permit issued to RWE Cogen UK Limited.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/CP3939QN/T001 (full transfer and variation of permit EPR/RP3130LN)	16/07/2018	Duly made. Application to transfer the permit to RWE Generation UK PLC, and change the name of the site to Seal Sands Power Station.
Transfer and variation determined EPR/CP3939QN	23/07/2018	Full transfer and variation of permit complete.
Regulation 61 Notice sent to the Operator	01/05/2018	Issue of a Notice under Regulation 61(1) of the EPR. Environment Agency initiated review and variation to vary the permit under IED to implement Chapter II following the publication of the revised Best Available Techniques (BAT) Reference Document for large combustion plant.
Regulation 61 Notice response.	13/11/2018	Response received from the Operator.
Request for information sent 14/02/2020	03/03/2020	Response received: BAT Conclusion 40, MSUL/DLN-E and use of low pressure fuel gas.
Request for information sent 04/03/2020	09/03/2020	MSUL/DLN-E
Variation determined EPR/CP3939QNV002 (Billing ref: UP3306BD)	06/05/2020	Varied and consolidated permit issued. Effective from 06/05/2020

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>
ConocoPhillips	EPR/NP3033LN	01/05/2007

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

### Permit number

EPR/CP3939QN

### Issued to

**RWE Generation UK PLC** (“the operator”)

whose registered office is

**Windmill Hill Business Park  
Whitehill Way  
Swindon  
Wiltshire  
SN5 6PB**

company registration number **03892782**

to operate a regulated facility at

**Seal Sands Power Station  
North South Access Road  
Seal Sands  
Middlesbrough  
TS2 1FB**

to the extent set out in the schedules.

The notice shall take effect from 06/05/2020

Name	Date
Anne Lloyd	06/05/2020

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.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/CP3939QN**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/CP939QN/V002 authorising,

**RWE Generation UK PLC** (“the operator”),

whose registered office is

**Windmill Hill Business Park  
Whitehill Way  
Swindon  
Wiltshire  
SN5 6PB**

company registration number **03892782**

to operate an installation at

**Seal Sands Power Station  
North South Access Road  
Seal Sands  
Middlesbrough  
TS2 1FB**

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

Name	Date
Anne Lloyd	06/05/2020

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.

1.2.2 The operator shall review the viability of Combined Heat and Power (CHP) implementation at least every 4 years, or in response to any of the following factors, whichever comes sooner:

- (a) new plans for significant developments within 15 km of the installation;
- (b) changes to the Local Plan;
- (c) changes to the BEIS UK CHP Development Map or similar; and
- (d) new financial or fiscal incentives for CHP.

The results shall be reported to the Agency within 2 months of each review, including where there has been no change to the original assessment in respect of the above factors.

### 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.

## **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 red 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 For the following activities referenced in schedule 1, table S1.1: LCP270. The activities shall be operated in accordance with the “Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines” dated December 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: LCP270. The end of the start-up period and the start of the shut-down period shall conform to the specifications set out in schedule 1, tables S1.2 and S1.4.
- 2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP270. The effective Dry Low NOx threshold shall conform to the specifications set out in schedule 1, tables S1.2 and S1.5.

- 2.3.7 The emission limit values from emission point A1 listed in tables S3.1 and S3.1a of schedule 3 following the issue of a Black Start Instruction by the National Grid shall be disregarded for the purposes of compliance whilst that instruction remains effective and in accordance with the report submitted in response to improvement condition IC4.
- 2.3.8 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.
- 2.3.9 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.

## **2.4 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 S1.3a 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, S3.1a and S3.2.
- 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, S3.1a and S3.2; and
  - (b) process 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 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, S3.1a and S3.2 unless otherwise agreed in writing by the Environment Agency.

## **3.6 Monitoring for Large Combustion Plant**

- 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 and the Large Combustion Plant Best Available Techniques Conclusions.
- 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, tables S3.1 and S3.1a, the Continuous Emission Monitors shall be used such that:
- (a) for the continuous measurement systems fitted to the LCP release points defined in tables S3.1 and S3.1a 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. 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 resource efficiency metrics 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 (a)(i), or 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 "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
<b>Section 1.1 Part A(1) (a)</b>  Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<b>LCP270</b> 130.28 MWth combined cycle gas turbine (CCGT) power plant, with heat recovery steam generator (HRSG), steam turbine and hybrid cooling, burning natural gas, with the ability to burn low pressure fuel gas to produce electricity. <sup>Note 1</sup>  1 MWth black start emergency gas oil generator.	From receipt of natural gas or low pressure fuel gas to discharge of exhaust gases and the generation of electricity and steam for export.
<b>Directly Associated Activity</b>		
Directly associated activity	Raw material storage – bulk storage of liquids in tanks and drums.	From receipt, to transfer and storage.
Directly associated activity	Waste handling – generation and storage of wastes.	From generation of waste to despatch from the installation.
Directly associated activity	Surface water drainage.	From handling and storage of site drainage until discharge to the site surface water system.
Note 1: The burning of low pressure fuel gas shall be subject to pre-operational condition PO01 in table S1.3a of this permit.		

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/RP3130LN/A001	Sections B2.1 and B2.2 of the application.	25/07/2006
Response to regulation 60(1) Notice – request for information dated 31/10/2014	Compliance route and operating techniques identified in response to questions 2 (compliance route), 4 (type of combustion unit), 5 (thermal input), 6 (minimum start-up load and minimum shut-down load), 9i (proposed ELVs) and 9iii (proposed MSUL and MSDL ELVs).	31/03/2015
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 12/06/2015	Responses to questions 1 (date of operational commencement of each LCP), 2 (the method which the net rated thermal input of each LCP was derived) and 3 (details of how the MSUL and MSDL were derived) of the request for further information.	06/07/2015
Receipt of additional information to the regulation 60(1) Notice.	Confirmation of the compliance routes chosen for LCP270 via email.	16/12/2015
Annual Surveillance Tests (AST) and Quality Assurance Level (QAL2)	<u>BAT Conclusion 4</u> Reduced AST and QAL2 requirements may be applicable during periods of low operational use. These requirements shall not commence until they have been approved in writing by the Environment Agency.	25/01/2019

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Response to regulation 61(1) Notice – request for information dated 01/05/2018 EPR/CP3939QN/V002	Compliance and operating techniques identified in response to the BAT Conclusions for large combustion plant published on 17 August 2017.	13/11/2018
Additional information in response to regulation 61(1) Notice EPR/ CP3939QN/V002	Compliance and operating techniques identified in response to BAT Conclusion 40.	03/03/2020
	Compliance and operating techniques identified in response to the use of low pressure fuel gas.	

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC1	The Operator shall develop a documented Energy Management Plan with regard to section 2.7 of the Agency Sector Guidance Note IPPC S1.02. The Operator shall submit a written summary of the plan to the Agency.	Complete
IC2	The Operator shall carry out a water efficiency audit in accordance with section 2.4 of Agency Sector Guidance Note S1.02. The Operator shall submit a written summary of the audit to the Agency.	Complete
IC3	For LPCD LCP 236 (now LCP270 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.	Complete
IC4	<u>Black start</u> A written report shall be submitted to the Environment Agency for approval. The report shall contain an impact assessment demonstrating that there is no significant environmental risk associated with black start operations and propose a methodology for minimisation of environmental impact during such a period of operation and for reporting instances of black start operation.  The plant can be operated as set out in condition 2.3.7 of the permit once the report has been approved by the Environment Agency. The methodology for operation and reporting set out in the report shall be implemented by the operator from the date of approval by the Environment Agency.	30/06/2021
IC5	<u>BAT Conclusions 2 and 40</u> The operator shall carry out a performance test for LCP207 in CCGT mode. The test shall be carried out at full load according to EN standards.  The operator shall submit a written report to the Environment Agency which shall summarise the results of the performance test. The report shall also include the performance against the relevant BAT Associated Energy Efficiency Level (AEEL).	30/06/2021

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC6	<p><u>Chapter III annex V limits</u></p> <p>The operator shall provide a report to the Environment Agency to demonstrate how the limits set out in annex V of the IED shall be met from 70% to baseload.</p> <p>Where any improvements are identified, the operator shall submit proposals for their implementation including timescales to be agreed in writing by the Environment Agency.</p> <p>Following completion of any improvements, the annex V limits for LCP270 in tables S3.1 and S3.1a shall be applicable from 70% to baseload.</p>	31/12/2020
IC7	<p><u>BAT Conclusion 42 - Dry Low NOx effective</u> <sup>Note 1</sup></p> <p>The operator shall submit a report in writing to the Environment Agency for approval. The report shall define an output load or operational parameters and provide a written justification for when the Dry Low NOx operation is effective. The report shall also include the NOx profile through effective dry low NOx to 70% and then to full load.</p> <p>Note 1: LCP270 limits in table S3.1a of this permit shall apply between the effective Dry Low NOx threshold and baseload from 17 August 2021. Effective Dry Low NOx threshold shall be defined in table S1.5 of this permit.</p>	31/12/2020

Table S1.3a Pre-operational measures	
Reference	Pre-operational measures
PO01	<p><u>BAT Conclusion 9</u></p> <p>Prior to the use of low pressure fuel gas as a fuel for LCP270, the operator shall submit a procedure for approval outlining how the low pressure fuel gas will be characterised in line with BAT Conclusion 9 in order to improve general performance of combustion and to reduce emissions to air.</p> <p>The procedure shall include, but not necessarily be limited to, the following elements:</p> <ul style="list-style-type: none"> <li>- Initial fuel characterisation;</li> <li>- Regular testing of the fuel quality to check that it is consistent with the initial characterisation and according to the plant design specifications; and</li> <li>- Subsequent adjustments of the plant settings as and when needed and practicable.</li> </ul>

Table S1.4 Start-up and Shut-down thresholds		
Emission Point and Unit Reference	“Minimum Start-Up Load” (MSUL) Load in MW and as percent of rated power <sup>Note 1</sup> output (%)	“Minimum Shut-Down Load” (MSDL) Load in MW and as percent of rated power <sup>Note 1</sup> output (%)
A1 LCP270	30 MW; 75% <sup>Note 2</sup>	30 MW; 75% <sup>Note 2</sup>
<p>Note 1: Gas turbine rated electrical output.</p> <p>Note 2: Threshold parameters may change, subject to the outcome of IC6 in table S1.3 of this permit.</p>		

<b>Table S1.5 Dry Low NOx effective definition</b>	
<b>Emission Point and Unit Reference</b>	<b>Dry Low NOx effective definition Load in MW and as percent of rated power output (%)</b>
A1 LCP270	Threshold parameters shall be subject to the outcome of IC7 in table S1.3 of this permit.

## 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>
Hydrogen sulphide content of low pressure fuel gas	Not exceeding 160 ppm (v/v)
Gas oil	Not exceeding 0.1% w/w sulphur content
Natural gas	-

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air - emission limits and monitoring requirements shall apply until 16 August 2021						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	50 mg/m <sup>3</sup> <sup>Note 2</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			55 mg/m <sup>3</sup> <sup>Note 2</sup> 55 mg/m <sup>3</sup> MSUL/MSDL to base load <sup>Note 3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
			60 mg/m <sup>3</sup> <sup>Note 2</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Carbon monoxide	100 mg/m <sup>3</sup> <sup>Note 2</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			100 mg/m <sup>3</sup> <sup>Note 2</sup> 100 mg/m <sup>3</sup> MSUL/MSDL to base load <sup>Note 3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
			100 mg/m <sup>3</sup> <sup>Note 2</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181

**Table S3.1 Point source emissions to air - emission limits and monitoring requirements shall apply until 16 August 2021**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</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>
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Sulphur dioxide	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Dust <sup>Note 5</sup>	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Oxygen	-	-	Continuous as appropriate to reference	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Water vapour <sup>Note 4</sup>	-	-	Continuous as appropriate to reference	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Stack gas temperature	-	-	Continuous as appropriate to reference	Traceable to national standards
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Stack gas pressure	-	-	Continuous as appropriate to reference	Traceable to national standards
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	As required by the Method Implementation Document for BS EN 15259	-	-	Pre-operation and when there is a significant operational change	BS EN 15259

**Table S3.1 Point source emissions to air - emission limits and monitoring requirements shall apply until 16 August 2021**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</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>
A2 <sup>Note 1</sup>	Cooling tower	Water vapour	-	-	-	-
A3 <sup>Note 1</sup>	De-aerator	Water vapour	-	-	-	-
A4 <sup>Note 1</sup>	AGI heaters	-	-	-	-	-
A5 <sup>Note 1</sup>	Gas turbine start up diesel engine	-	-	-	-	-
A6 <sup>Note 1</sup>	Emergency generator	-	-	-	-	-
A7 <sup>Note 1</sup>	Gas turbine emergency vent	Natural gas / LP fuel gas	-	-	-	-

Note 1: Emission point on drawing CGD/PPL/010/A of application EPR/RP3130LN/A001.

Note 2: Limits shall be set in accordance with the outcome of IC6 in table S1.3 of this permit.

Note 3: This limit applies when the load varies between MSUL/MSDL and base load during the daily reference period. MSUL and MSDL are defined in table S1.4 of this permit.

Note 4: Monitoring shall not be required if gas is dried prior to extraction and analysis.

Note 5: Monitoring shall only be required when the gas turbine is fired on LP fuel gas.



Table S3.1a Point source emissions to air - emission limits and monitoring requirements shall apply from 17 August 2021						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	45 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	Yearly average	Continuous	BS EN 14181
			50 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			55 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup> 55 mg/m <sup>3</sup> MSUL/MSDL to base load <sup>Note 3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
			60 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Carbon monoxide	30 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	Yearly average	Continuous	BS EN 14181
			100 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			100 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup> 100 mg/m <sup>3</sup> MSUL/MSDL to base load <sup>Note 3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
			100 mg/m <sup>3</sup> When DLN is effective to base load <sup>Note 2</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181

<b>Table S3.1a Point source emissions to air - emission limits and monitoring requirements shall apply from 17 August 2021</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</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>
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Sulphur dioxide	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Dust <sup>Note 5</sup>	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Flow	-	-	Periodic As appropriate to reference	EN ISO 16911
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Oxygen	-	-	Continuous as appropriate to reference	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Water vapour <sup>Note 4</sup>	-	-	Continuous as appropriate to reference	BS EN 14181
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Stack gas temperature	-	-	Continuous as appropriate to reference	Traceable to national standards

**Table S3.1a Point source emissions to air - emission limits and monitoring requirements shall apply from 17 August 2021**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</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>
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	Stack gas pressure	-	-	Continuous as appropriate to reference	Traceable to national standards
A1 <sup>Note 1</sup>	LCP270 Gas turbine fired on natural gas and/or LP fuel gas	As required by the Method Implementation Document for BS EN 15259	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A2 <sup>Note 1</sup>	Cooling tower	Water vapour	-	-	-	-
A3 <sup>Note 1</sup>	De-aerator	Water vapour	-	-	-	-
A4 <sup>Note 1</sup>	AGI heaters	-	-	-	-	-
A5 <sup>Note 1</sup>	Gas turbine start up diesel engine	-	-	-	-	-
A6 <sup>Note 1</sup>	Emergency generator	-	-	-	-	-
A7 <sup>Note 1</sup>	Gas turbine emergency vent	Natural gas / LP fuel gas	-	-	-	-

Note 1: Emission point on drawing CGD/PPL/010/A of application EPR/RP3130LN/A001.

Note 2: This ELV applies when DLN is effective throughout the reference period. DLN effective shall be defined in table S1.5 of this permit subject to the outcome of IC7 in table S1.3 of this permit.

Note 3: This ELV applies when the load varies between MSUL/MSDL and base load during the daily reference period. MSUL and MSDL are defined in table S1.4 of this permit.

Note 4: Monitoring shall not be required if gas is dried prior to extraction and analysis.

Note 5: Monitoring shall only be required when the gas turbine is fired on LP fuel gas.

<b>Table S3.2 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 <sup>Note 1</sup>	Visible oil	Effluent collection sump	No significant trace present	Instantaneous (spot sample)	-	Visual
Note 1: Emission point on drawing CGD/PPL/010/A of application RP3130LN.						

<b>Table S3.3 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>
LCP270	Net electrical efficiency	After each modification that could significantly affect these parameters	EN Standards or equivalent	-

## 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	A1	Annually	1 January
		Every 3 months	1 January, 1 April, 1 July, 1 October
Carbon monoxide	A1	Annually	1 January
		Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	A1	Annually	1 January
Dust	A1	Annually <sup>Note 1</sup>	1 January
Invalidation of continuous monitoring	A1	Annually	1 January

Note 1: Reporting shall only be required when the gas turbine is fired on LP fuel gas.

<b>Table S4.2: Resource Efficiency Metrics</b>	
<b>Parameter</b>	<b>Units</b>
Electricity Exported	GWhr
Heat Exported	GWhr
Mechanical Power Provided	GWhr
Fossil Fuel Energy Consumption	GWhr
Non-Fossil Fuel Energy Consumption	GWhr
Annual Operating Hours	hr
Water Abstracted from Fresh Water Source	m <sup>3</sup>
Water Abstracted from Borehole Source	m <sup>3</sup>
Water Abstracted from Estuarine Water Source	m <sup>3</sup>
Water Abstracted from Sea Water Source	m <sup>3</sup>
Water Abstracted from Mains Water Source	m <sup>3</sup>
Gross Total Water Used	m <sup>3</sup>
Net Water Used	m <sup>3</sup>
Hazardous Waste Transferred for Disposal at another installation	t
Hazardous Waste Transferred for Recovery at another installation	t
Non-Hazardous Waste Transferred for Disposal at another installation	t
Non-Hazardous Waste Transferred for Recovery at another installation	t
Waste recovered to Quality Protocol Specification and transferred off-site	t
Waste transferred directly off-site for use under an exemption / position statement	t

<b>Table S4.3 LCP performance parameters for reporting to DEFRA and other performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
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 (load factor)	Annually	hr
Natural gas used	Annually	m <sup>3</sup>
Low pressure fuel gas used (subject to PO01 in table S1.3a of this permit)	Annually	m <sup>3</sup>

<b>Table S4.4 Reporting forms</b>		
<b>Media / parameter</b>	<b>Reporting format</b>	<b>Agency recipient</b>
Air & Energy	Form IED AR1 – SO <sub>2</sub> , NO <sub>x</sub> and dust mass emission and energy Form as agreed in writing by the Environment Agency.	National and Area office
LCP	Form IED HR1 – operating hours Form as agreed in writing by the Environment Agency.	National and Area office
Air	Form IED CON 2 – continuous monitoring Form as agreed in writing by the Environment Agency.	Area Office
CEMs	Form IED CEM – Invalidation Log Form as agreed in writing by the Environment Agency.	Area Office
Air	Form IED PM1 - discontinuous monitoring and load Form as agreed in writing by the Environment Agency.	Area Office
Resource Efficiency	Form REM1 – resource efficiency annual report Form as agreed in writing by the Environment Agency.	National and 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	
Name of operator	
Location of Facility	
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	

<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>	
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.

“Air Quality Risk Assessment” has the meaning given in Annex D of IED Compliance Protocol for Utility Boilers and Gas Turbines.

“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.

“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.

“Black Start” means the procedure to recover from a total or partial shutdown of the UK Transmission System which has caused an extensive loss of supplies. This entails isolated power stations being started individually and gradually being reconnected to other power stations and substations in order to form an interconnected system again.

“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.

“commissioning” means testing of the installation that involves any operation of a Large Combustion Plant referenced in schedule 1, table S1.1 of the permit.

“daily average” means the average over a period of 24 hours of validated hourly averages obtained by continuous measurements.

“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.

“emissions to land” includes emissions to groundwater.

“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 2016 No.1154 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.

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

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshaft 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.

“low polluting fuels” means biomass or coal with an average as-received sulphur content of less than 0.4% by mass as described in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“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.

“Net electrical efficiency” means the ratio between the net electrical output (electricity produced minus the imported energy) and the fuel/feedstock energy input (as the fuel/feedstock lower heating value) at the combustion unit boundary over a given period of time.

“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.

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.

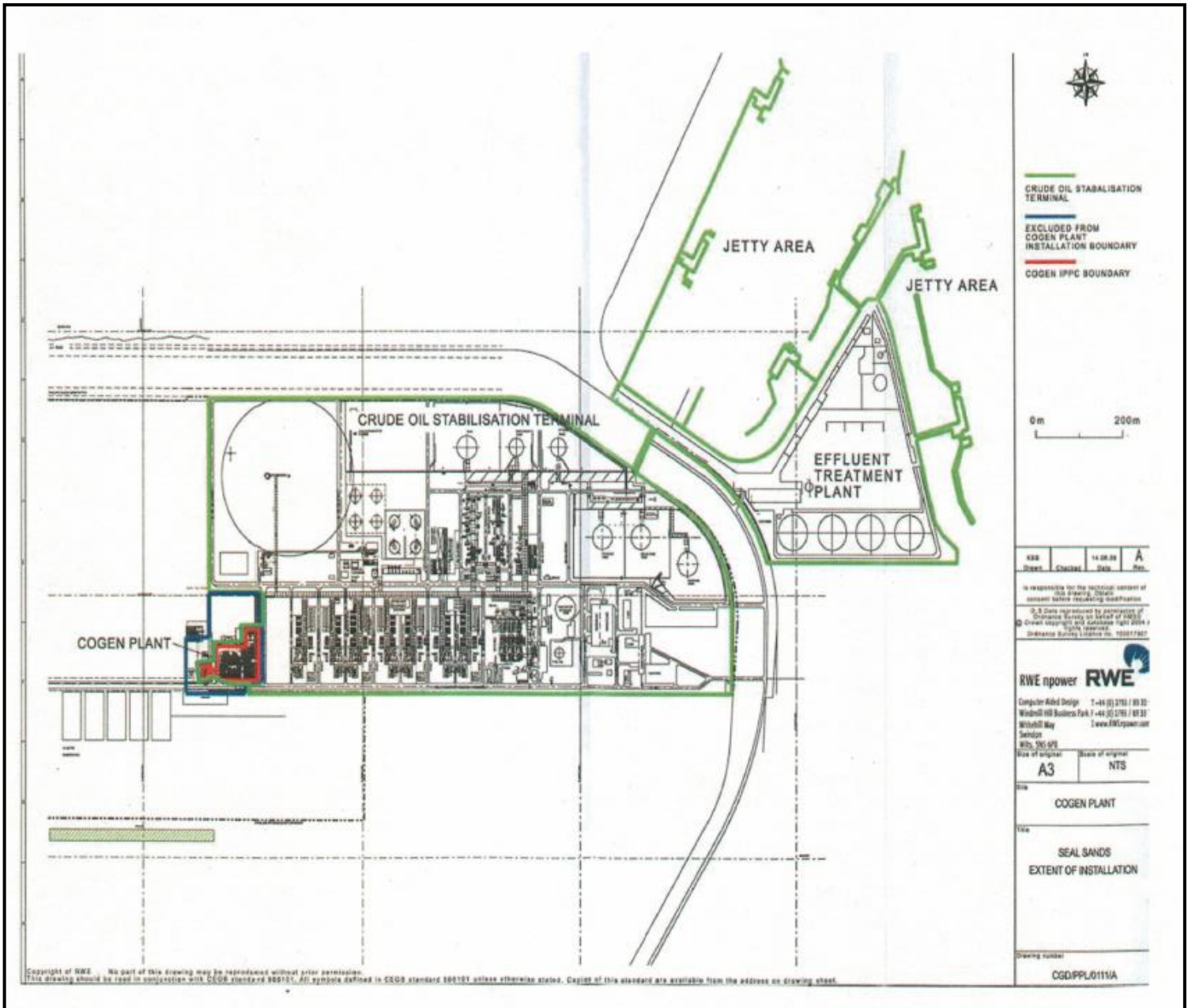
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from 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 with a waste heat 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.

“yearly average” means the average over a period of one year of validated hourly averages obtained by continuous measurements.

# Schedule 7 – Site plan



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**END OF PERMIT**