

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Corby Power Limited

Corby Power Station Mitchell Road Phoenix Parkway Corby Northamptonshire NN17 5QT

#### Variation application number

EPR/LP3833LM/V004

#### Permit number

EPR/LP3833LM

## Corby Power Station Permit number EPR/LP3833LM

#### 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 generic permit template.

The Operator has chosen to operate these LCPs under the Lifetime Derogation (LLD).

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

- LCP 127 is changed to LCP 70; and
- LCP 128 is changed to LCP 71.

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

Two PPC permits apply to the permitted installation. Permit (LP3833LM) as varied, is for the combined cycle gas turbine power station. A second permit (XP3338LV) has been issued for the associated odorising plant, operated by National Grid Gas PLC. The odorising plant is located on the northern side of the power station, between the power station and Gretton Brook road, as illustrated on the site plan in Schedule 2 of this permit.

Corby Power Station is wholly owned by ESB. The installation was built in 1992 and covers an area of approximately 4.5 hectares, located in an industrial area to the north of Corby, centred on National Grid Reference SP89609110, approximately 1.5km to the west of Rockingham Motor Speedway.

A large warehouse and small vehicle repair shop are located on the eastern boundary of the installation. A railway line and tunnel run along the western side of the installation, and on the other side of this lies an industrial estate. Gretton Brook road and Gretton Brook watercourse run parallel from west to east along the northern perimeter of the installation, and an area of woodland called Brookfield Plantation lies just to the north of the road. The land immediately to the south of the installation is currently vacant.

The nearest residential property is situated approximately 150m away. There are no Sites of Special Scientific Interest (SSSIs) within 2km of the installation (the nearest is Cothwick Quarry approximately 4km to the south-east) and no European Designated Habitat sites within 10km of the installation (the nearest is Rutland Waters approximately 15km to the north).

The power station consists of two gas turbines, each with a thermal input capacity of 407 megawatts (MWth).

Hot gases from the two gas turbines are fed to two heat recovery boilers which are used to generate steam, which in turn is used to power a steam turbine. The three turbines (two gas turbines and one steam turbine) each drive an electrical generator and, operating under combined cycle mode, the net electrical output from the power station is 350MW (under ISO conditions).

Air-cooled condensers are used to cool the steam once it has passed through the steam turbine, and, once condensed, the water is fed back to the heat recovery boilers. Some steam is also injected back into the gas turbine burners in order to control the formation of oxides of nitrogen (NOx) that results from the combustion process.

The power station is also able to run gas turbines in open cycle mode, to facilitate fast start up so that it can supply emergency power to the grid.

During open cycle operation combustion gases from the gas turbines are vented through existing exhaust gas bypass stacks, rather than being transmitted through the heat recovery steam generators to produce steam for use in the steam turbine (CCGT mode).

Open cycle operation mode is required to enable fast start up operation so that Corby Power Station can supply power to the National Grid at short notice. It also ensures that fast and flexible electrical power is available during periods of high electricity demand and to ensure security of supply if an electricity generating problem occurs elsewhere in the country. Most open cycle runs are short and therefore running in combined cycle (CCGT) mode for this purpose is not a viable option because the start up times are too long.

The gas turbines are normally fuelled by natural gas which is not stored on site but supplied as required from an AGI (Above Ground Installation) adjacent to the power station. The turbines also have the capability of being fuelled by low sulphur gas oil. Gas oil can be stored on-site in a bunded compound containing 4 fuel oil tanks, each with a capacity of  $5,000\text{m}^3$ , holding enough oil to fuel the installation for approximately 10 days of operation. The installation use of towns water has dropped following the changing operational requirements.

The principal emissions resulting from the operation of the installation are those released to air from the two gas turbines, the major components being oxides of nitrogen (NOx), sulphur dioxide ( $SO_2$ ), carbon monoxide (CO) and particulates. These emissions are primarily released from the installation's two exhaust stacks (70m in height each). However, when the installation's heat recovery boilers are not in operation (e.g. during start-up) these emissions are released from two bypass stacks (35m in height each). Other emissions to air include flue gases from a 1.6MWth auxiliary boiler, a dieselfuelled emergency start generator and fire water pumps, and the vent of a scrubber on the hydrochloric acid (HCI) storage tank.

The installation has one emission to sewer, which consists of a mixture of boiler blowdown, gas turbine wash waters and effluent from the water treatment process. A trade effluent discharge consent has been issued by Anglian Water Services Ltd for the release of these wastewaters to sewer. Before being discharged to sewer, and ultimately the Corby Waste Water Treatment Works, waste waters from the water treatment process are neutralised and boiler waters are cooled to ensure that the effluent meets the relevant limits set in the installation's discharge consent.

The installation has one emission to Gretton Brook. This release to the brook consists of site surface water and is discharged via a three-stage oil interceptor and penstock valve.

The installation has been denotified as a lower tier site under the COMAH regulations. The installation does not hold a Climate Change Agreement or a Direct Participant Agreement in the Energy Trading Scheme (DPA), however, the Operator is a participant in the European Union Emissions Trading Scheme (EUETS).

The installation is operated in accordance with an ISO14001 accredited Environmental Management System, which is externally audited on an bi-annual basis.

The schedules specify the changes made to the permit.

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

Status log of the permit			
Description	Date	Comments	
Application LP3833LM	Duly made 15/03/06		
Additional Information received	Requested 26/09/06	11/10/06 & 19/10/06	
Additional Information received	Requested 24/10/06	10/11/06	
Additional Information received	Requested 06/12/06	30/01/07	
Permit determined	15/03/07		
Variation notice LP3836UR issued	01/08/07		
Variation application EPR/LP3833LM/V003 (PAS Ref. WP3636CK)	Duly made 01/08/12	To enable limited operation of gas turbines in OCGT mode	
Additional Information received	21/09/12	Schedule 5 Notice response	
Additional Information received	23/11/12	Schedule 5 Notice response	
Variation determined EPR/LP3833LM/V003	22/01/13	Variation Notice issued	
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	31/03/2015	Response received from the Operator.	
Additional information received	24/06/2015	Response to request for further information (RFI) dated 16/06/2015	
Variation determined EPR/LP3833LM/V004 (PAS Billing ref: AP3838AV)	18/12/2015	Varied and consolidated permit issued in modern condition format.  Variation effective from 01/01/2016.	

Other Part A installation permits relating to this installation		
Operator Permit number Date of issue		
National Grid Gas plc	EPR/XP3338LV	18/12/06

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/LP3833LM

#### Issued to

Corby Power Limited ("the operator")

whose registered office is

Mitchell Road Phoenix Parkway Corby Northamptonshire NN17 5QT

company registration number 02329494

to operate part of an installation at:

Corby Power Station Mitchell Road Phoenix Parkway Corby Northamptonshire NN17 5QT

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Mike Jenkins	18/12/2015

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.

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

#### **Permit**

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

#### Permit number

#### EPR/LP3833LM

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/LP3833LM/V004 authorising,

Corby Power Limited ("the operator"),

whose registered office is

Mitchell Road Phoenix Parkway Corby Northamptonshire NN17 5QT

company registration number 02329494

to operate part of an installation at:

Corby Power Station Mitchell Road Phoenix Parkway Corby Northamptonshire NN17 5QT

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

Name	Date
Mike Jenkins	18/12/2015

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 For the following activities referenced in schedule 1, table S1.1: A1 to A10. 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 For the following activities referenced in schedule 1, table S1.1: A1 to A10. 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 For the following activities referenced in schedule 1, table S1.1: A1 to A10. 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 operator 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, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operators of the installation.

#### 2.3 Operating techniques

- 2.3.1 For the following activities referenced in schedule 1, table S1.1: A1 to A10. 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: LCP70 and LCP71. 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: LCP70 and LCP71. Standby fuel Gas Oil may be used for periods of up to 10 days during times of interruption to the gas supply.
- 2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP70 and LCP71 operating in open cycle mode. The activities shall not operate for more than 500 hours per year.
- 2.3.7 For the following activities referenced in schedule 1, S1.1: LCP70 and LCP71. The activities shall not be operated for more than 17,500 operating hours starting from 1 January 2016 and ending no later than 31 December 2023.
- 2.3.8 For the following activities referenced in schedule 1, table S1.1: LCP70 and LCP71. 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

- 2.3.9 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.
- 2.3.10 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.

#### 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 The emission values from emission points A1 and A2, listed in schedule 3 table S3.1, measured during periods of abatement equipment malfunction and breakdown shall be disregarded for the purposes of compliance with Table S3.1 emission limit values.
- 3.1.4 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, 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 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 For the following activities referenced in schedule 1, table S1.1: A1 to A10. 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;
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
  - (d) where condition 2.3.6 applies the hours of operation in any year; and
  - (e) where conditions 2.3.7 apply, the hours of operation since 1 January 2016.
- 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), 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 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
  - (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.
- 4.3.8 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 a	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.  Excludes the operation of the odorising plant.  The odorising plant operated by National Grid Gas PLC is regulated under a separate PPC permit, reference XP3338LV.	LCP 70: Producing electricity by burning natural gas with gas oil as back up in a 407 MW(th) combined cycle gas turbine 1 (GT1).	From receipt of fuel and raw materials to generation of electricity, steam and power and release of emissions to air through A1 stack
A2		LCP 71: Producing electricity by burning natural gas with gas oil as back up in a 407 MW(th) combined cycle gas turbine 1 (GT2).	From receipt of fuel and raw materials to generation of electricity, steam and power and release of emissions to air through A2 stack
A3		Production of electricity from gas turbine GT1 (LCP 70) in open cycle operating mode using existing bypass stacks.	Open cycle operation using natural gas or gas oil and release of emissions to air through A3 stack.
A4		Production of electricity from gas turbine GT2 (LCP 71) in open cycle operating mode using existing bypass stacks.	Open cycle operation using natural gas or gas oil and release of emissions to air through A4 stack.
	Directly Associated Activity		1
A5	Directly Associated Activity	Distillate oil storage	Receipt of oil from delivery pipeline (from the point that the pipeline enters the bunded fuel oil storage compound) and handling and storage of raw material to dispatch for use.
A6	Directly Associated Activity	Surface water drainage	Handling and storage of site drainage until discharge to Gretton Brook via three-stage oil interceptor.

Table S1.1 a	Table S1.1 activities		
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A7	Directly associated activity	Treatment of process water	From receipt, handling and storage of raw materials to discharge of treated water to sewer following pH adjustment, including operation and maintenance of HCI bulk tank scrubber.
A8	Directly associated activity	Auxiliary boiler	From receipt, handling and storage of raw materials and wastes to dispatch/distribution of product.
A9	Directly associated activity	Emergency start generator	From receipt, handling and storage of raw materials and wastes to dispatch/distribution of product.
A10	Directly associated activity	Firewater pumps	From receipt, handling and storage of raw materials to storage and dispatch of wastes, including firewater.
Activity reference	Description of activities for waste operations	Limits of activities	
-	-	-	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application	The response to sections 2.1 and 2.2 in the Application.	15/03/06	
Response to request for information issued on 26/09/06	Including response to question 9 confirming that the plant currently only operates in open-cycle mode during plant start-up and recovery following repairs/failure of the steam turbine or boilers, but excluding open-cycle running to cover issues surrounding security of supply.	11/10/06	
Response to request for information issued on 26/09/06	Response to question 3 detailing frequency of maintenance checks carried out for pipework and drains.	11/10/06 & 19/10/06	

Table S1.2 Operating techniques		
Description	Parts	Date Received
Response to request for information issued on 06/12/06	Response from operator "Supporting documentation for the air quality assessment – new operating regime". Specifically stating that Corby Power Station will be fired on gas oil for a maximum of 1080 hours and that the station will always start up and shut down on gas unless there is a gas supply failure.	30/01/07
Variation Application EPR/LP3833LM/V003	Supporting Information document Sections 2 and 3.	01/08/12
Response to Further Information Request issued 24/08/12	Response to Question No 2.	21/09/12
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance routes and operating techniques identified in response to questions 2. Excluding compliance route TNP & LHD for LCP 70 and LCP 71, and related operating techniques.	Received 31/03/2015
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 16/06/2015	Operating techniques identified in response to questions 6 on the start up and shut down of the Gas Turbines in open cycle mode and the shut down in closed cycle mode.	Received 24/06/2015
Receipt of additional information relating to start up and shut down.	Operating techniques identified relating to the start up and shut down of the Gas Turbines in closed cycle mode.	Received 08/12/2015
Receipt of additional information to the regulation 60(1) Notice.	Confirmation of the compliance routes chosen for LCP70 and LCP71.	Received 17/12/2015

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC10	It is not considered to be BAT to operate a CCGT in OCGT mode other than exceptional circumstances	30/6/13
	The operator should provide a justification of the circumstances under which it may be BAT to operate a CCGT in open cycle mode in the balancing market or other operating regimes. Parameters to consider should include:	
	Emissions to air and impact on human health Energy efficiency	
	The Environment Agency will use this information along with information from other industry and National Grid to determine generic BAT conditions for the open cycle operation of CCGTs in competition with closed cycle plants.	
	The operator should have regard to the requirements of the balancing market (eg start up time requirements) and define a maximum run time beyond which the service should be provided by high efficiency plant.	

eference	Requirement	Date
IC11	The Operator shall submit a report on the feasibility of carrying out emissions monitoring during open cycle operation. The report shall include results from any monitoring that has been carried out during open cycle operation and how the results would relate to possible emission limit values.	30/6/13
IC 12	For LCPD LCP 127 and 128 (now LCP 70 and LCP 71 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.	28/01/2016
IC 13	The operator shall provide a report in writing to the Environment Agency for acceptance which provides the net rated thermal input for LCP 70 and LCP 71. 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).	31/12/2016
	Evidence to support this figure, in order of preference, shall be in the form of:-	
	a) Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes),	
	b) Performance test results after a significant modification (quoting the specified standards or test codes),	
	c) Manufacturer's contractual guarantee value,	
	d) Published reference data, e.g., Gas Turbine World Performance Specifications (published annually);	
	e) Design data, e.g., nameplate rating of a boiler or design documentation for a burner system;	
	f) Operational efficiency data as verified and used for heat accountancy purposes,	
	g) Data provided as part of Due Diligence during acquisition,	
	*Performance test results shall be used if these are available.	

Table S1.5 Start-up and Shut-down thresholds				
Emission Point and Unit Reference	"Minimum start up load"	"Minimum shut-down load"		
A1 / LCP 70 (Closed Cycle)	<ul> <li>70 MWe; 56% of rated power output; and/or when two of the criteria listed below for the LCP or unit have been met:</li> <li>1. GT1 NOx steam conditioning drain valve CLOSED.</li> <li>2. GT1 NOx steam injection valve position &gt; minimum requirement for minimum load;</li> <li>3. GT1 NOx steam flow &gt; minimum requirement for minimum load.</li> </ul>	50 MWe; 40% of rated power output.		
A2 / LCP 71 (Closed Cycle)	<ul> <li>70 MWe; 56% of rated power output; and/or when two of the criteria listed below for the LCP or unit have been met:</li> <li>1. GT2 NOx steam conditioning drain valve CLOSED.</li> <li>2. GT2 NOx steam injection valve position &gt; minimum requirement for minimum load;</li> <li>3. GT2 NOx steam flow &gt; minimum requirement for minimum load.</li> </ul>	50 MWe; 40% of rated power output.		
Emission Point and Unit Reference	"Minimum start up load"	"Minimum shut-down load"		
A3 / LCP 70 (Open Cycle)	10 MWe; 8% of rated power output	7 MWe; 6% of rated power output.		
A4 / LCP 71 (Open Cycle)	10 MWe; 8% of rated power output	7 MWe; 6% of rated power output.		

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

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Natural Gas	-
Gas oil	Not exceeding 0.1% w/w sulphur content

## Schedule 3 – Emissions and monitoring

Life Derogati	Parameter	Source	Limit	Reference	Monitorina	Monitorina
Emission point ref. & location	Parameter	Source	(including unit)-these limits do not apply during start up or shut down.	period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 70 Gas turbine fired on natural gas	114 mg/m <sup>3</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 70 Gas turbine fired on natural gas	125 mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A1 [Point A1 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 70 Gas turbine fired on gas oil	210 mg/m <sup>3</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 70 Gas turbine fired on gas oil	230 mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Oxygen	LCP No. 70 Gas turbine fired on natural gas or gas oil	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Water Vapour	LCP No. 70 Gas turbine fired on natural gas or gas oil	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Stack gas temperature	LCP No. 70 Gas turbine fired on natural gas or gas oil	-	-	Continuous As appropriate to reference	Traceable to national standards

Table S3.1 Point source emissions to air from gas turbines >100MWth operating under the Limited Life Derogation

Emission point ref. & Parameter Source Limit (including period period frequency standard or

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
A1 [Point A1 on site plan in schedule 7]	Stack gas pressure	LCP No. 70 Gas turbine fired on natural gas or gas oil	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [Point A1 on site plan in schedule 7]	Sulphur dioxide	LCP No. 70 Gas turbine fired natural gas or gas oil	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A1 [Point A1 on site plan in schedule 7]	-	LCP No. 70 Gas turbine fired on natural gas or gas oil	-	-	Pre- operation and when there is a significant operational change	BS EN 15259
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 71 Gas turbine fired on natural gas	114 mg/m <sup>3</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A2 [Point A2 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 71 Gas turbine fired on natural gas	125 mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 71 Gas turbine fired on gas oil	210 mg/m <sup>3</sup>	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A2 [Point A2 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 71 Gas turbine fired on gas oil	230 mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181

Table S3.1 Point source emissions to air from gas turbines >100MWth operating under the Limited Life Derogation **Emission Parameter** Source Limit Reference Monitorina Monitorina point ref. & (including frequency standard or period location unit)-these method limits do not apply during start up or shut down. A2 [Point A2 LCP No. 71 Continuous BS EN 14181 Oxygen on site plan Gas turbine As in schedule fired on appropriate 7] natural gas to reference A2 [Point A2 Water LCP No. 71 BS EN 14181 Continuous on site plan Vapour Gas turbine As in schedule fired on appropriate 7] natural gas to reference or gas oil A2 [Point A2 Stack gas LCP No. 71 Continuous Traceable to on site plan temperature national Gas turbine As in schedule fired on appropriate standards 7] natural gas to reference or gas oil A2 [Point A2 Stack gas LCP No. 71 Continuous Traceable to on site plan pressure national Gas turbine As in schedule fired on appropriate standards 7] natural gas to reference or gas oil Concentration A2 [Point A2 Sulphur LCP No. 71 At least by on site plan dioxide every 6 Gas turbine calculation, in schedule months fired natural as agreed in 7] gas or gas writing with oil the Environment Agency A2 [Point A2 LCP No. 71 Pre-BS EN 15259 on site plan operation Gas turbine in schedule and when fired on 7] there is a natural gas significant or gas oil operational change LCP No 70 A3 (Point A3 in Open on site plan Cycle in schedule LCP No 71 A4 (Point A4 in Open on site plan Cycle in schedule

7]

Table S3.1 Point source emissions to air from gas turbines >100MWth operating under the Limited Life Derogation **Emission** Parameter Source Limit Reference Monitoring Monitoring standard or point ref. & (including period frequency location unit)-these method limits do not apply during start up or shut down. Auxiliary A5 [Point A5 Boiler on site plan in schedule 7] Emergency A6 [Point A6 start on site plan generator in schedule exhaust 7] Flue gases A7 [Point A7 from two on site plan fire water in schedule pumps 7]

Table S3.2 Poin requirements	t Source emissio	ons to water (	other than	sewer) – emiss	ion limits and r	nonitoring
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
W1 on site plan in schedule 7 emission to Gretton Brook	Oil & grease	Site surface water drainage via oil interceptor	-	-	Weekly	Visual check

Vent from

acid

storage

scrubber

hydrochloric

A8 [Point A8

on site plan

in schedule

7]

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site-emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7 emission to Anglian Water Corby Waste Water Treatment Works	-	Effluent from water treatment plant, boiler blow down and plant cleaning activities	-	-	-	-

### Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring	g data		
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to Air Parameters as required by condition 3.5.1	A1 & A2	Every 3 months	1 January, 1 April, 1 July, 1 October
Operating hours as required by condition 2.3.6	A3 & A4	Every 3 months	1 January, 1 April, 1 July, 1 October
Operating hours as required by condition 2.3.7	A1 & A2	Annual	1 January

Table S4.2: Resource Efficiency Metrics	
Parameter	Units
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

Table S4.3 Chapter III Performance pa	arameters for reporting to DEFRA	
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 (dust) for each LCP	Annually	t
Operating Hours for each LCP (Load Factor)	Annually	hr

Table S4.4 Ro	eporting forms			
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
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 2 - SO <sub>2</sub> , NO <sub>x</sub> and dust concentration emissions.	01/01/16	Area Office	31/12/15
CEMs	Form IED CEM – Invalidation Log	01/01/16	Area Office	31/12/15
Air	Form IED PM1 - discontinuous monitoring for SO2, NOx, PM and load.	01/01/16	Area Office	31/12/15
Resource Efficiency	Form REM1 – resource efficiency annual report	01/01/16	National	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

#### Schedule 5 - Notification

These pages outline the information that the operator must provide.

(b) Notification requirements for the breach of a limit

Emission point reference/ source

Measured value and uncertainty

Measures taken, or intended to be taken, to stop the emission

Date and time of monitoring

To be notified within 24 hours of detection unless otherwise specified below

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

Parameter(s)

Limit

Parameter	Notification period
(c) Notification requirements for the detection of any signif	cant adverse environmental effect
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Data of manitoring/annualing	
Part B – to be submitted as soon as p	racticable
Part B – to be submitted as soon as p  Any more accurate information on the matters for	racticable
Part B – to be submitted as soon as p  Any more accurate information on the matters for notification under Part A.  Measures taken, or intended to be taken, to prevent	racticable
Part B – to be submitted as soon as p  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	racticable
Part B – to be submitted as soon as p  Any more accurate information on the matters for notification under Part A.  Measures taken, or intended to be taken, to prevent	racticable
Part B – to be submitted as soon as p  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	racticable
Part B – to be submitted as soon as p  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	racticable
Part B – to be submitted as soon as p  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	racticable
Part B – to be submitted as soon as p  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.	racticable
Part B – to be submitted as soon as p  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.	racticable

Time periods for notification following detection of a breach of a limit

<sup>\*</sup> 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.

"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; or

for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"biomass" means:

- (a) vegetable matter from agriculture and forestry;
- (b) vegetable waste from the food processing industry, if the heat generated is recovered;
- (c) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is coincinerated at the place of production and the heat generated is recovered;
- (d) cork waste; and
- (e) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste.

"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.

"breakdown" has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

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

"CEN" means Commité 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.

"dynamic emission limit value" (DELV) means an emission limit that varies in accordance with Article 40 of the Industrial Emissions Directive.

"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 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 given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

"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 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.

"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.

"malfunction" has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

"Mid-merit" means combustion plant operating between 1,500 and 4,000 hrs/yr.

"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.

Pests" means Birds, Vermin and Insects.

"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.

"SI" means site inspector.

"Standby fuel" means alternative liquid fuels that are used in emergency situations when the gas fuel which is normally used, is not available.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, 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.

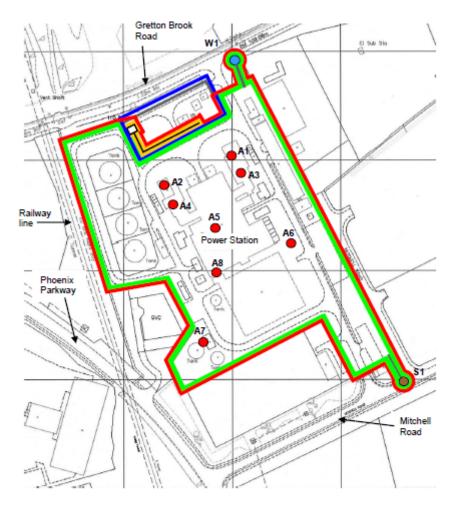
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

• 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 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.

### Schedule 7 – Site plan



Key: Permit boundary of power station (LP3833LM)

Permit boundary of gas odorising plant (XP3338LV)

Installation boundary covered by permits of power station and gas odorising plant

Area of National Grid Transco gas compound to be excluded from power station permit.

Emission point to sewer from power station

Emission point to air from power station

Emission point to water from power station

**END OF PERMIT**