

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

EDF Energy (Cottam Power) Limited

Cottam Power Station
Outgang Lane
Cottam Village
Retford
Nottinghamshire
DN22 0EU

Variation application number

EPR/SP3535LT/V010

Permit number

EPR/SP3535LT

Cottam Power Station

Permit number EPR/SP3535LT

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 this LCP under the Transitional National Plan (TNP) compliance route. This is a change from the previous operating regime which was the ELV approach.

This variation uses an updated LCP number in accordance with the most recent DEFRA LCP reference numbers. The LCP reference has changed as follows: LCP173 is changed to LCP120.

The thermal input of the LCP is as follows: LCP120 consists of four coal-fired boilers with a total input of 5308 MWth.

The variation notice also includes the addition of four 4.4 MWth emergency diesel generators and one temporary gas oil boiler <5MWth, and adds a newly prescribed activity under the IED (classifying pulverised fuel ash). This variation also removes the requirement to maintain an air quality management plan to demonstrate compliance with air quality standards, as well as the requirement to assess changes in acidification and eutrophication deposition and ecological effects at appropriate Natura 2000 sites. Corrections to monitoring requirements for emissions to water have also been made.

We have also updated some of the emission point references in the permit – LCP120 (formally emission points A1, A2, A3 and A4) is now emission point A1. Emission points A2, A3 and A4 have been removed from the permit.

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

Cottam Power Station was constructed in the 1960s and is situated in the lower Trent valley, east of Retford in Nottinghamshire. The Station comprises four coal fired generating sets of 500MW output each. The Station is part of a portfolio of plant owned by EDF Energy plc, and is operated by EDF Energy (Cottam Power) Limited.

When permitted in 2007 a feature of the station was its wet stack. During 2010 the installation of new ductwork to enable heat to be utilised from the boilers to prevent the emissions of water droplets from the stack was undertaken. This was known as the hot air to stack (HATS). Installation and commissioning of an improvement to the HATS system, clean hot air to stack (CHATS) is to be completed which consists of new heat exchangers, fans and ductwork to introduce clean heated air into the stack to increase the temperature of the chimney exhaust, in order to prevent water droplets being emitted from the chimney and also prevent the occasional discharges of particulate matter.

Sulphur dioxide is abated by the use of limestone flue gas desulphurisation (FGD), one unit to each boiler and the boilers utilise primary measures to reduce the emission of nitrogen oxides.

Coal and limestone are delivered to the Station by the use of a dedicated rail system for bulk materials. Oil (for initial firing of the boilers and load support) and biomass are delivered to the station using road transport.

Waste from the boilers consists of ash. Furnace Bottom Ash is collected from the bottom of the boilers and transported to holding areas and thence sold to the building industry to manufacture building blocks.

Pulverised Fuel Ash leaves the boiler and is collected by electrostatic precipitators. This material is also sold for use in the construction industry; however, if no market can be found then this material can also be land filled on an adjacent site.

The installation of FGD has produced another stream from the plant, desulphogypsum (DSG), which is recovered in a purpose built plant. The material, produced to a specification, is sold to the building industry for the manufacture of plasterboard or for the formulation of cement.

Emissions from the installation are to air from the boilers and to water from the use of cooling water and the treatment of DSG. Emissions to air from the coal boilers are via separate flues within a common windshield which is 198m high. Emissions to water are to the River Trent after suitable treatment. Cooling is provided by cooling towers.

The permit considers the impact of the Installation both on the local area and nationally. Local considerations include the noise that the Installation generates, the possibility of particulate matter blow from stockpiles and odours from the operation. Measures have been imposed to control these emissions. Emissions from the Installation have been considered in combination with other sources and appropriate conditions imposed to minimise the effect on identified sensitive receptors.

The installation is a lower tier COMAH site. The installation has a Major Accident Plan to ensure that the COMAH aspects of the installation are addressed. Procedures are in place to control other potential risks at the installation.

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
SP3535LT	Duly made 31/03/06	
Request to provide a revised list of release points	05/07/06	Response received 09/08/06
Request to review the ASR		Response received 05/09/06
Revised documents updating progress and changes since application	10/01/07	
Permit determined	30/10/07	
Variation MP3730GV	Duly made 21/08/08	
Variation determined	01/03/09	
Application for variation EPR/SP3535LT/V003	Duly made 04/03/10	
Variation issued	08/12/10	
Application for variation EPR/SP3535LT/V004	Duly made 12/07/10	

Status log of the permit		
Description	Date	Comments
Variation issued	22/12/10	
Application for variation EPR/SP3535LT/V005	Duly made 26/11/10	
Variation issued	27/01/11	Variation determined EPR/SP3535LT/V006
Variation determined EPR/SP3535LT/V006	11/03/13	Environment Agency Initiated Variation, to incorporate Eel Regulations improvement condition
Agency variation determined EPR/SP3535LT/V007	13/12/13	Environment Agency variation to implement the changes introduced by IED
Variation determined EPR/SP3535LT/V008	Issued 25/09/14	Environment Agency Initiated Variation, to add an improvement condition requiring a cost benefit appraisal to ensure compliance with the Eels Regulations. Effective 1/10/14.
Application received	29/09/14	Administrative variation to carry out a newly prescribed activity under the Industrial Emissions Directive
Application EPR/SP3535LT/V009	Duly made 12/02/15	Application to vary permit to allow the operation of the Clean Hot Air to Stack system (CHATS)
Variation determined EPR/SP3535LT/V009	16/03/2015	Varied permit 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	31/03/15	Response received from the Operator.
Additional information received	28/05/15	Response to request for further information (RFI) dated 13/05/15
Additional information received	25/08/15	Updated values for MSUL and MSDL originally provided in Regulation 60 Notice response.
Additional information received	28/08/15	Operation of emergency generators and temporary steam boiler
Additional information received	09/11/15, 16/11/15	Updated values and justification for LCP thermal input
Additional information received	13/11/15	Site plan showing main emissions points, information on operation of diesel generators and temporary boiler
Variation determined EPR/SP3535LT/V010 (PAS Billing ref: HP3436WT)	30/12/15	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

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/SP3535LT

Issued to

EDF Energy (Cottam Power) Limited ("the operator")

whose registered office is

**40 Grosvenor Place
Victoria
London
SW1X 7EN**

company registration number **04074196**

to operate a regulated facility at

**Cottam Power Station
Outgang Lane
Cottam Village
Retford
Nottinghamshire
DN22 0EU**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Anne Nightingale	30/12/2015

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/SP3535LT

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/SP3535LT/V010 authorising,

EDF Energy (Cottam Power) Limited ("the operator")

whose registered office is

**40 Grosvenor Place
Victoria
London
SW1X 7EN**

company registration number 04074196

to operate an installation at

**Cottam Power Station
Outgang Lane
Cottam Village
Retford
Nottinghamshire
DN22 0EU**

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

Name	Date
Anne Nightingale	30/12/2015

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 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
 - (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (d) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities;
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

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

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”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1: A5. Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

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

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 For the following activities referenced in schedule 1, table S1.1: LCP120. 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: LCP120. The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5
- 2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP120. The following conditions apply where there is a malfunction or breakdown of any abatement equipment:
Unless otherwise agreed in writing by the Environment Agency:
- (i) if a return to normal operations is not achieved within 24 hours, the operator shall reduce or close down operations, or shall operate the activities using low polluting fuels;
 - (ii) the cumulative duration of breakdown in any 12-month period shall not exceed 120 hours; and
 - (iii) the cumulative duration of malfunction in any 12-month period shall not exceed 120 hours.
- 2.3.7 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.

- 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 S1.4 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 The emission values from emission point A1 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 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 3.1.5 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 and S3.2;
- (b) process monitoring specified in table S3.4.

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

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

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

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

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

4 Information

4.1 Records

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

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

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

4.2 Reporting

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

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the 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; and
- (d) where condition 2.3.6 applies, the cumulative duration of breakdown and cumulative duration of malfunction in any 12 month period.

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

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

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

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter

the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

- 4.2.6 Within 10 days of the notification of abatement equipment malfunction or breakdown (condition 2.3.6) the operator shall submit an Air Quality Risk Assessment as outlined in the IED Compliance Protocol (condition 2.3.2).
- 4.2.7 For the following activities referenced in schedule 1, table S1.1: LCP120. Unless otherwise agreed in writing with the Environment Agency, within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form IED RTA1, listed in table S4.4, the information specified on the form relating to the site's mass emissions.

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.
- (d) of any malfunction or breakdown of abatement equipment relating to condition 2.3.6, the operator shall notify the Environment Agency within 48 hours unless notification has already been made under (a) to (c) above.

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, or 4.3.1 (d) where the information relates to malfunction or breakdown of abatement equipment 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 reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 1.1 A(1)(a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<p>LCP120: Operation of four boilers (each 1327 MWth) burning coal and biomass for production of steam and electricity (5308 MW aggregated net thermal input)</p> <p>Operation of four emergency generators burning gas oil for the production of electricity (4 x 4.4 MW net thermal input)</p> <p>Operation of a temporary seasonal boiler <5 MW net thermal input to produce steam for HFO heating</p>	<p>From receipt of coal, gas oil, heavy fuel oil, biomass or propane to discharge of exhaust gases and wastes, and the generation and export of electricity</p> <p>The emergency generators shall only be used under emergency conditions or for testing</p> <p>Wastes as specified in Table 2.2</p>
A2	Section 4.2 Part A(1)(a)(iv): Producing inorganic chemicals - salts	Operation of four Flue Gas Desulphurisation (FGD) units.	Receipt of limestone to dispatch of gypsum off site and discharge of wastewater to the wastewater treatment plant.
A3	Section 5.4 Part A(1)(a)(ii): Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day - physico-chemical treatment	Treatment of waste water from the flue gas desulphurisation plant.	Discharge of wastewater from the FGD process to the discharge from site.
A4	Section 3.5 Part B(f): Loading, unloading or storing pulverised fuel ash in bulk prior to further transportation in bulk	Pulverised fuel ash (PFA) handling and storage.	From removal of PFA and FBA from the combustion process to dispatch from site, excluding the treatment of PFA carried out as part of activity A5

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A5	Section 5.4 Part A(1)(b)(iii): treatment of slags and ashes	Classifying PFA	From receipt of PFA from the combustion process to dispatch of classified PFA for onward handling Wastes as specified in Table 2.3
Directly Associated Activity			
A6	Directly associated activity	Surface water drainage	Handling and storage of site drainage until discharge to the site surface water system.
A7	Directly associated activity	Water treatment	From receipt of raw materials to dispatch to chemical effluent and site drainage systems.
A8	Directly associated activity	Fuel storage	From receipt of raw materials to dispatch for use.
A9	Directly associated activity	The use of water from the River Trent to condense steam.	The pumping, filtering and chemical treatment of the water, its use in the condensers and cooling water system to the discharge of the water back to the River Trent.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to section 2.1 and 2.2 in the Application	31/03/06
Receipt of additional information to the application	List of emission points	09/08/06
Receipt of Updated information	Revised organogram, update of progress on projects. Revised drawings including release points to air.	10/01/07

Table S1.2 Operating techniques		
Description	Parts	Date Received
Fugitive Emissions Monitoring plan, Odour Management plan and Noise Management plan	All parts	30/01/08
Application for Variation MP3730 GV	All relevant parts of the application and supporting information	21/08/08
Submission of Operational change to application document 33 section 6.3 for the re-firing of material from interceptor 12.	Email response from the Environment Agency of 27/01/09	Approval 27/01/09
Application for Variation EPR/SP3535LT/V003	Application for an Environmental Permit Part C	04/03/10
Submission of change of operations for Emergency make up line	All parts of the Emergency make-up line reinstatement operational change request	23/03/10
Submission of Operational change to application document 23, sections 3.1.2 & 3.1.3, and document 30 section 2.	Minor operational change as outlined in EDF letter for coal pond fines operation	25/06/10
Application for Variation EPR/SP3535LT/V004	Application for an Environmental Permit Part C2 – varying a bespoke permit	12/07/10
Application for Variation EPR/SP3535LT/V005	Application for an Environmental Permit Part C2 – varying a bespoke permit	26/11/10
Variation Application to carry out a newly prescribed activity	Parts 3 and 4 of “Administrative Variation – September 2014 Supporting Information”	29/09/14
Application EPR/SP3535LT/V009	Sections 2, 3.2, 4.3, and 5.1 of the application support document provided in response to question 3a – technical standards , Part B3 of the application form	Duly made 12/02/15
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance route(s) and operating techniques identified in response to questions 2 (compliance route), 4 (configuration of each LCP), 5 (net thermal input of each LCP), 6 (MSUL and MSDL) and 7 (sector approach) Excluding the LLD compliance route for LCP173 (now LCP120) and related operating techniques	31/03/15

Table S1.2 Operating techniques		
Description	Parts	Date Received
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 13/05/15	Compliance route(s) and operating techniques identified in response to questions 2 (compliance route), 5 (net thermal input of each LCP) and 6 (MSUL and MSDL).	28/05/15
Submission of revised site plan included in document "Additional information in relations to Environment Agency comments received on 11/08/2015"	Plan Ref J26003A0/COT/ENV 004 B revision 3 – Oil interceptor s and oil separator location plan	28/08/15
Submission of revised site plan included in document "Additional information in relations to Environment Agency comments received on 11/08/2015"	Plan Ref J26003A0/COT/ENV 005 A revision 3 - Bulk storage tanks, raw materials products, byproduct and waste storage plan	28/08/15
Receipt of additional information to the regulation 60(1) Notice.	Information on emergency generators and temporary boiler plant	28/08/15, 13/11/15, 16/11/15
Receipt of additional information to the regulation 60(1) Notice.	Revised MSUL and MSDL figures	Received 25/08/15
Receipt of additional information to the regulation 60(1) Notice.	Revised LCP thermal input figures	09/11/15
Receipt of additional information to the regulation 60(1) Notice.	Confirmation of the compliance routes chosen for LCP173 (now LCP120)	Received 21/12/15

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>A written report shall be submitted to the Agency. The report shall include the results of an assessment of whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution for the activities covered by this permit. The report shall be in sufficient detail to allow a permit review. The report shall also contain a timescale for the implementation of any individual measures identified to improve the performance of the installation, including emissions control performance, as appropriate following the review.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p> <p>The individual measures detailed in the report shall be implemented by the operator from the date of approval by the Environment Agency.</p>	Complete
IC2	A written report shall be submitted to the Agency. The report shall contain a protocol detailing the methodology for measuring the fraction of PM ₁₀ and PM _{2.5} within the release of total particulate matter from the	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>combustion process. The protocol shall include but not be restricted to a variety of operating scenarios including start up and shut down, changes in operating loads and patterns and types of abatement. The report shall also contain a proposed time-scale within which the proposed sampling program contained within the protocol will be completed.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p> <p>The program shall be implemented by the operator from the date of approval in writing by the Agency.</p>	
IC3	<p>A written report shall be submitted to the Agency. The report shall include a detailed assessment, including economic factors, of the options to increase firing of biomass fuels.</p> <p>Where appropriate, the report shall contain dates for the implementation of individual measures.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p> <p>The individual measures detailed in the report shall be implemented by the operator from the date of approval by the Environment Agency</p>	Complete
IC4	<p>A written report shall be submitted to the Agency. The report shall include the results of a water efficiency audit in accordance with section 2.4.3 of IPPC Sector Guidance Note for the Combustion Sector. The report shall also contain a timescale for the implementation of any individual measures identified to address any deficiencies.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p> <p>The individual measures detailed in the report shall be implemented by the operator from the date of approval by the Environment Agency.</p>	Complete
IC5	<p>A written report shall be submitted to the Agency. The report shall include the results of a waste minimisation audit in accordance with section 2.4.2 of IPPC Sector Guidance Note for the Combustion Sector. The report shall also contain a timescale for the implementation of any individual measures identified to address any deficiencies.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p> <p>The individual measures detailed in the report shall be implemented by the operator from the date of approval by the Environment Agency.</p>	Complete
IC6	<p>Provide a written plan of how this installation will contribute to total emissions of SO₂ from existing major coal-fired power stations in England and Wales being minimised and in any case not exceeding 70 kt/y by 2020. The report should consider scenarios for electricity demand in 2020 and give the planned arrangements for SO₂ emissions control at this installation. (Existing coal-fired stations comprise LCP that might still be operating in 2020. These are at Aberthaw, Cottam, Drax, Eggborough, Ferrybridge, Fiddlers Ferry, Ratcliffe, Rugeley, Uskmouth and West Burton). The plan should be implemented after approval by the Environment Agency.</p>	1st April 2008. With updated versions by 1st April 2012 & 1st April 2016
IC7	<p>A written report shall be submitted to the Agency for approval. The report shall contain a protocol for a monitoring programme to assess changes in acidification and eutrophication deposition and ecological effects at appropriate Natura 2000 sites. The protocol will include the selection of the Natura 2000 sites and a time scale for implementation of the programme.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report. The protocol detailed in</p>	31/12/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	the report shall be implemented by the Operator from the date of approval by the Environment Agency.	
IC8	The Operator shall confirm completion of the acceptance tests on the Flue gas desulphurisation wastewater treatment plant. in writing to the Agency for approval From the date of the Agency approval the limits marked "a" in table S4.2 shall apply.	Complete
IC9	The Operator shall remove the gypsum stored in the temporary storage areas. The areas shall then be cleaned of residual gypsum to ensure that Particulate matter is not blown around the installation. The completion of this operation shall be reported to the Environment Agency in writing.	Complete
IC10	The Operator shall propose a programme of work to optimise the performance of the flue gas desulphurisation equipment. A report of the progress of the optimisation process will be provided to the Environment Agency at intervals to be agreed by the Operator and the Agency.	Complete
IC11	A written procedure shall be submitted to the agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure. The procedure shall be implemented by the operator from the date of approval in writing by the Agency	Complete
IC12	<p>The Operator shall undertake a review of the existing screening measures at the intakes and outfalls which provide and discharge water to and from the Installation. The review shall be undertaken with reference to the Eels (England and Wales) Regulations 2009 (SI 2009/3344) and the Environment Agency "Safe Passage of Eel" Regulatory Position Statement version 1 dated July 2012.</p> <p>The Operator shall submit details of the arrangement suitable to meet the requirements for the safe passage of eels [of the Eels (England and Wales) Regulations 2009 (SI 2009/3344)] by either:-</p> <ul style="list-style-type: none"> • Providing a written proposal for the installation of an eel screen. • Providing a written proposal to the modification of existing screening arrangements. • Providing a written response with an explanation and description of how the existing screening arrangements can be regarded to meet the requirements for the safe passage of eels [of SI 2009/3344] either without change or with mitigation measures. • Providing a written response setting out a case for an exemption <p>In all cases, the proposal shall be submitted in writing for the approval of the Environment Agency. Where appropriate, each proposal shall contain an assessment of alternative options considered including impacts on other fish species and an explanation of why the proposed option has been chosen.</p> <p>Where installation of eel screen; modification of existing arrangements; or mitigation measures are proposed, the submission shall contain relevant timescales for installation in accordance with the Safe Passage of Eel Regulatory Position Statement version 1 dated July 2012.</p> <p>The proposals shall be implemented in accordance with the Environment Agency's written approval.</p>	Complete
IC13	The Operator has undertaken a review of the existing screening arrangements with reference to the Eels (England and Wales) Regulations 2009 (SI 2009/3344) and the Environment Agency "Safe Passage for Eel" Regulatory Position Statement version 1 dated July	Received 25/06/15, under assessment by

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>2012 (and as amended February 2013) in response to Improvement Programme reference IC12 .</p> <p>The Environment Agency has determined that the site does not comply with the requirements for safe passage of eel and the Operator is now required to complete a cost benefits appraisal of best available technique with reference to the Environment Agency "Safe Passage for Eel: Guidance on Exemptions" as a screening tool.</p> <ul style="list-style-type: none"> a) If the Cost Benefit Assessment shows that the Benefits are greater than the costs by a factor of 1.5 or more, then the Operator shall submit to the Environment Agency for review a report setting out the costs and the technical and economic feasibility to introduce the improvements to achieve best available technique. b) If the Cost Benefit Assessment shows that the Benefits are not greater than the costs by a factor of 1.5 or more, then the Operator shall, with reference to the Environment Agency "Safe Passage for Eel: Guidance on exemptions, assess which alternative measure, or combination of alternative measures, could be implemented under a case of a conditioned Exemption. The Operator shall submit a report to the Environment Agency setting out the costs and the technical and economic feasibility of implementing their proposed alternative measure or measures. <p>In all cases, the submission shall contain relevant timescales in accordance with the Safe Passage for Eel Regulatory Position Statement version 1 dated July 2012 (as amended 2013).</p> <p>The proposals shall be implemented following written approval of the Environment Agency.</p> <p>Whilst undertaking this Improvement Condition, the Operator shall be operating under exemption from the requirements to place eel screen diversion structures pursuant to Regulation 17(5)(a) of the Eels (England and Wales) Regulations 2009. The exemption will remain in place until the Environment Agency has provided written approval that the Improvement Condition has been deemed complete.</p>	the Environment Agency
IC14	The Operator shall provide a written post-commissioning report on the success of the first Clean Hot Air To Stack (CHATS) system to be installed. The report shall provide evidence of the improvements to the particulate emissions, and that the plume visibility remains the same as for the previous HATS system. The report shall also confirm that it will be possible to meet a calendar monthly mean ELV of 20 mg/m ³ for dust from LCP120 from 31/03/16.	31/03/16
IC15	The operator shall undertake a data collection exercise for the recirculation trial of the Flue Gas Desulphurisation Waste Water Treatment until 31 March 2016, or other date agreed in writing by the Environment Agency. On conclusion of the data collection exercise the operator shall submit a written report to the Agency which shall either confirm the ELV for selenium in Table S3.2 is appropriate or propose an alternative ELV.	3 months following completion of the recirculation trial
IC16	For LCPD LCP120: 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 LCPD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry.	28/01/16
IC17	The operator shall submit a copy of the air quality monitoring and modelling results to demonstrate compliance with air quality standards	30/06/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	for sulphur dioxide, oxides of nitrogen and particulate (PM10) during 2015, following the format and requirements of previous years submissions to the Environment Agency.	

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
1	Burning of up to 15% (thermal substitution) of biomass, by semi direct injection, on boilers 1 , 3 and 4.	<p>The operator shall submit a post commissioning report to the Environment Agency for approval. The report shall demonstrate that the burning of biomass on boiler 2, by semi direct injection, was completed successfully with no breach of permit conditions that indicate long term compliance issues.</p> <p>Complete</p>
2	Hot air taken from boilers 1,3 and 4 and injected into the associated flue gas desulphurisation unit absorber vessel outlets.	<p>The operator shall submit a post commissioning report to the Environment Agency for approval. The report shall demonstrate that the injection of hot air taken from boiler 2 into the flue gas outlet was successful in terms of the benefits envisaged to be gained from this operation, as described in the application.</p> <p>Complete</p>

Table S1.5 Start-up and Shut-down thresholds		
Emission Point and Unit Reference	“Minimum start up load” Load in MW and as percent of rated power output (%)	“Minimum shut-down load” Load in MW and as percent of rated power output (%)
A1 Unit 1	220 MW; 44.3%	220 MW; 44.3%
A1 Unit 2	220 MW; 44.0%	220 MW; 44.0%
A1 Unit 3	220 MW; 44.0%	220 MW; 44.0%
A1 Unit 4	220 MW; 44.3%	220 MW; 44.3%

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Heavy fuel oil	Not exceeding 1.0% w/w sulphur content
Gas oil	Not exceeding 0.1% w/w sulphur content
Biomass fuels	As defined in Article 2(11) of the EU Directive 2001/80/EC and included in the application or otherwise agreed in writing by the Agency.

Table S2.2 Permitted waste types and quantities for combustion in steam boilers	
Waste code	Description
Relevant exempt biomass	Biomass fuels exempt from the requirements of the Waste Incineration Directive and Large Combustion Plant Directive (as defined in Article 2(11) of EU Directive 2001/80/EC and Article 2 of EU Directive 2000/76/EC) and included in the application or otherwise agreed in writing by the Agency
Other exempt waste	Other fuels exempt from the requirements of the Waste Incineration Directive 2000/76/EC and approved in writing by the Agency for use in the installation

Table S2.3 Permitted waste types and quantities for ash processing	
Waste code	Description
10 01 02	Coal fly ash produced at Cottam power station and/or recovered from Cottam ash disposal site

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 120 Coal fired boiler plant	450 mg/m ³	Calendar monthly mean	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 120 Coal fired boiler plant	550 mg/m ³	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A1 [Point A1 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 120 Coal fired boiler plant	350 mg/m ³	Calendar monthly mean	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Sulphur Dioxide	LCP No. 120 Coal fired boiler plant	440 mg/m ³	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Dust	LCP No. 120 Coal fired boiler plant	25 mg/m ³ until 31/03/16 20 mg/m ³ from 01/04/16	Calendar monthly mean	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Dust	LCP No. 120 Coal fired boiler plant	35 mg/m ³	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. 120 Coal fired boiler plant	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Water Vapour	LCP No. 120 Coal fired boiler plant	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Stack gas temperature	LCP No. 120 Coal fired boiler plant	-	-	Continuous As appropriate to reference	Traceable to national standards

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in schedule 7]	Stack gas pressure	LCP No. 120 Coal fired boiler plant	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [Point A1 on site plan in schedule 7]	Stack gas volume flow	LCP No xxx Coal fired boiler plant	-	-	Continuous	BS EN 16911 & TGN M2
A1 [Point A1 on site plan in schedule 7]	Total mercury	LCP No. 120 Coal fired boiler plant	-	-	Annual	BS EN13211
A1 [Point A1 on site plan in schedule 7]	As required by the Method Implementation Document for BS EN 15259	LCP No. 120 Coal fired boiler plant	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A5 (I) to(v)vents from PFA silos	-	PFA collection	-	-	-	Permanent access not required
A6 vent from concrete PFA silo	-	PFA collection	-	-	-	Permanent access not required
A7 vent from FGD limestone unloading.	-	FGD limestone unloading	-	-	-	Permanent access not required
A8 FGD limestone silos and conveyors.	-	FGD limestone handling plant	-	-	-	Permanent access not required
A9 (I) to (XCVI)	-	Steam safety valves on boiler house roof	-	-	-	Permanent access not required
A10 (I) to (XXVIII)	-	Steam safety valves on deaerator roof	-	-	-	Permanent access not required

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A11 (I) to (IV)	-	Vents from fuel oil storage tanks 4,5,6	-	-	-	Permanent access not required
A12	-	Emergency generator diesel storage tank	-	-	-	Permanent access not required
A13	-	Mobile plant gas oil storage tank coal plant	-	-	-	Permanent access not required
A14	-	Coal plant waste oil tank	-	-	-	Permanent access not required
A15 (I) to (VI)	-	No 1 oil store lubricating oil tanks	-	-	-	Permanent access not required
A16 (I) to(III)	-	No2 oil store lubricating and waste oil tanks	-	-	-	Permanent access not required
A17 (I) to (VII)	-	Water treatment plant chemical storage tanks	-	-	-	Permanent access not required
A18	-	Sodium hypochlorite storage tank	-	-	-	Permanent access not required
A19	-	Molten sulphur storage tank	-	-	-	Permanent access not required
A20	-	FGD plant ferric chloride storage	-	-	-	Permanent access not required

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A21 (I) to (II)	-	Natural draught vents from gypsum storage building .	-	-	-	Permanent access not required
A22 (I) to (V)	-	Shaker filter vents from biomass handling building	-	-	-	Permanent access not required
A23 (I) to (XVIII)	-	Filter vents and explosion relief vents from semi – direct injection biomass facility	-	-	-	Permanent access not required
A24 [Point A24 on site plan in schedule 7]	-	Emergency diesel generator 1	-	-	-	-
A25 [Point A25 on site plan in schedule 7]	-	Emergency diesel generator 2	-	-	-	-
A26 [Point A26 on site plan in schedule 7]	-	Emergency diesel generator 3	-	-	-	-
A27 [Point A27 on site plan in schedule 7]	-	Emergency diesel generator 4	-	-	-	-
A28 [Point A28 on site plan in schedule 7]	-	Temporary steam boiler	-	-	-	

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
W1(b) shown in ENV004a. Grid Ref. SK 8346 7909 Purge penstock weir	Total suspended solids	Cooling tower purge	120 mg/l	Instantaneous	Weekly	BS EN 872
	Mineral oil and hydrocarbons		None visible	Instantaneous	Weekly	Visual inspection
	Temperature		30°C	Instantaneous	Continuous	Standard thermocouple
	Total residual Chlorine		0.25 mg/l	Instantaneous	Continuous	Proprietary instrument
W1 (d) shown in ENV004a. Grid ref. SK 8346 7909 to River Trent. Sampled at outlet from FGD waste water treatment plant	Suspended solids	FGD waste water treatment plant	30 mg/l	Flow proportional sample	Weekly	BS EN 872
	pH		Between 6.0 and 10.0	Instantaneous	Continuous	BS ISO 10523
	Oil		None visible	Instantaneous	Daily	Visual Inspection
	Temperature		40°C	Instantaneous	Continuous	Standard Thermocouple
	Ammoniacal Nitrogen		25 mg/l	Flow Proportional Sampler	Weekly	Method as specified in current edition of M18 guidance
	Fluoride		20 mg/l			
	Chloride		40,000mg/l			
	Flow		3000m ³ per day			
	Cadmium		25 µg/l			
	Mercury		30 µg/l			
	Arsenic		100 µg/l			
	Chromium		500 µg/l			
	Copper		150 µg/l			
	Lead		200 µg/l			
	Nickel		200 µg/l			
	Zinc		500 µg/l			
	Vanadium		100 µg/l			
	Iron		1800 µg/l			

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Selenium		150 µg/l Note 1			
	Antimony		80 µg/l			
	Silver		50 µg/l			
	Aluminium		3600 µg/l			
	Molybdenum		2000 µg/l			
	Boron		350 mg/l			
W1(c) shown in ENV004a Grid ref. SK83467909	No Parameters set	Sewage works outfall into stormwater sewer	-	-	-	-
W2 grid shown in ENV004a ref. SK 8244 7880 to River Trent Back wash culvert make up pump house	No parameters set	Discharge of back wash water from strainers	-	-	-	-
W5 shown in ENV004a grid ref. SK8107 7867 to North Drain	Suspended Solids	Discharge of site drainage from no 2 separator	50 mg/l	Instantaneous	Weekly	BS EN 872
	Mineral oil and hydrocarbon		None visible	Instantaneous	Weekly	Visual inspection
	Total residual chlorine		0.25mg/l	Instantaneous	Weekly	Propriety instrument
W1(a) shown in ENV004a grid ref. SK8346 7909 ash lagoon outlet	Suspended Solids	Water from storm water sump	50 mg/l not to be exceeded more than 10 times per year	Instantaneous	Monthly	BS EN 872
	Suspended Solids		100 mg/l	Instantaneous	Weekly	BS EN 872
	Mineral oil and hydrocarbon		Non visible	Instantaneous	Weekly	Visible inspection
	Total residual chlorine		0.25mg/l	Instantaneous	Weekly	Propriety instrument

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
	pH	FGD waste water treatment plant	Between 5.0 and 10.0	Spot sample	Weekly	BS ISO 10523
W3 shown in ENV004a grid ref. 8346 7948 Seymour Drain	No Parameters set	Storm water sump over flow	-	-	-	Permanent sampling access not required
Note 1: Limit to apply from the approval in writing by the Environment Agency of the completion of Condition IC15, or other limit agreed in writing by the Environment Agency. Until then the Operator shall use BAT to minimise releases and maintain release concentrations as low as practicable.						

Table S3.3 Annual limits				
Emissions to air (excluding start up and shut down except where otherwise stated)				
Substance	Medium	Limit (including unit)		Emission Points
Dust, Sulphur dioxide and Oxides of nitrogen	Air	Assessment year	LCP TNP Limit	LCP120
		01/01/16 and subsequent years until 31/12/19	Emission allowance figure shown in the TNP Register as at 30 April the following year	
		01/01/20-30/06/20		
Emissions to water				
Substance	Medium	Limit (including unit)		Emission points
		Monthly load Kg	Annual load Kg	
Cadmium	Water	2	12	W1(d)
Mercury	Water	2	12	W1(d)
Arsenic	Water	7	42	W1(d)
Chromium	Water	36	216	W1(d)
Copper	Water	11	66	W1(d)
Lead	Water	14	84	W1(d)
Nickel	Water	14	84	W1(d)
Zinc	Water	36	216	W1(d)
Vanadium	Water	7	42	W1(d)
Iron	Water	130	780	W1(d)
Selenium	Water	11	66	W1(d)
Antimony	Water	6	36	W1(d)
Silver	Water	4	24	W1(d)
Molybdenum	Water	143	858	W1(d)

Table S3.3 Annual limits				
Boron	Water	25020	150120	W1(d)

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Inlets to Flue gas desulphurisation units 1 to 4	SO ₂	Continuous	BS EN 14181	To be used as part of the determination of removal efficiency.

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Dust	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Mercury	A1	Annually	1 January
Emissions to water Parameters as required by condition 3.5.1	W1(a), W1(b), W5	Every 3 months	1 January, 1 April, 1 July, 1 October

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 ³
Water Abstracted from Borehole Source	m ³
Water Abstracted from Estuarine Water Source	m ³
Water Abstracted from Sea Water Source	m ³
Water Abstracted from Mains Water Source	m ³
Gross Total Water Used	m ³
Net Water Used	m ³
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 parameters 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 _x for each LCP	Annually	t
Total Emissions to Air of SO ₂ for each LCP	Annually	t
Total Emissions to Air of dust for each LCP	Annually	t
Operating hours for each LCP	Annually	hr

Table S4.4 Reporting forms				
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air & Energy	Form IED AR1 – SO ₂ , NO _x and dust mass emission and energy	01/01/16	National and area	31/12/15
Air	Form IED RTA1 – TNP quarterly emissions summary log	01/01/16	National and area	31/12/15
LCP	Form IED HR1 – operating hours	01/01/16	National and area	31/12/15
Air	Form IED CON 1 – continuous monitoring	01/01/16	Area Office	31/12/15
CEMs	Form IED CEM – Invalidation Log	01/01/16	Area Office	31/12/15
LCP	Form IED BD1 - Cumulative annual rolling malfunction and breakdown hours	01/01/16	Area Office	31/12/15
Air	Form IED MF1 – Pollutant concentrations during any day with malfunction or breakdown of abatement plant	01/01/16	Area Office	31/12/15
Air	Form IED PM1 - discontinuous monitoring 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.

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	

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

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

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Part C Malfunction or Breakdown of LCP abatement equipment

Permit Number	
Name of operator	
Location of Facility	
LCP Number	
Malfunction or breakdown	
Date of malfunction or breakdown	

(a) Notification requirements for any malfunction and breakdown of abatement equipment as defined by the Industrial Emission Directive*.	
To be notified within 48 hours of abatement equipment malfunction and breakdown	
Time at which malfunction or breakdown commenced	
Time at which malfunction or breakdown ceased	
Duration of the breakdown event in hours and minutes	
Reasons for malfunction or breakdown	
Where the abatement plant has failed, give the hourly average concentration of all measured pollutants.	
Cumulative breakdown operation in current year (at end of present event)	
Cumulative malfunction operation in current year (at end of present event)	
Name**	
Post	
Signature **	
Date	

* See section 3.6 and Appendix E of ESI Compliance Protocol for guidance

** 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.

“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 Comité Européen de Normalisation.

“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.

“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 limit.

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

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

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

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

“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.

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

“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.

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

“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.

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

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

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

“TNP Register” means the register maintained by the Environment Agency in accordance with regulation 4 of the Large Combustion Plants (Transitional National Plan) Regulations 2015 SI2015 No.1973

“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.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

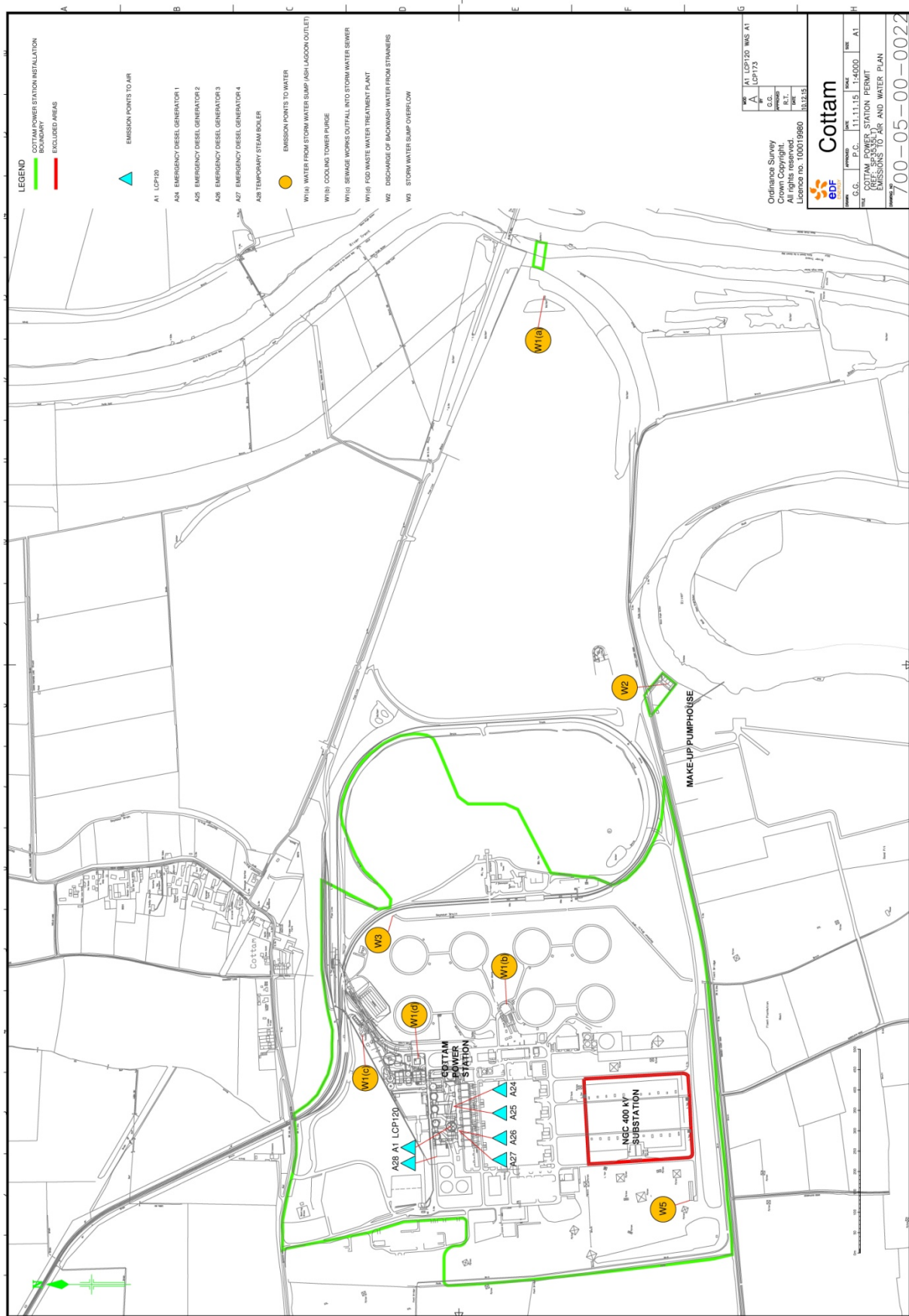
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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



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END OF PERMIT

Permit number
SP3535LT