



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Eggborough Power Limited
Eggborough Power Station
Eggborough
Goole
East Yorkshire
DN14 0BS

Variation application number

EPR/VP3930LH/V007

Permit number

EPR/VP3930LH

Eggborough Power Station

Permit number EPR/VP3930LH

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 Limited Lifetime Derogation (LLD) compliance route. This is a change from the previous operating regime which was the National Emissions Reduction Plan (NERP).

The variation notice uses an updated LCP number in accordance with the most recent DEFRA LCP reference numbers. The LCP reference has changed as follows: LCP2 is changed to LCP134.

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.

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

The electric power generation installation operated by Eggborough Power Limited is a major power station using coal, biomass and oil as fuel. It is situated in North Yorkshire, on a site close to the village of Eggborough, adjacent to the A19 trunk road and just north of the M62 motorway. On the north side of the site, approximately 1km away, runs the River Aire.

The installation comprises four 1,348 MW (net rated thermal input) mainly pulverised coal fired boiler/turbo-generator units (LCP134) capable of generating 2,000 MW electricity at full output.

The main emissions of concern to air are:

- 1) Sulphur dioxide (SO₂) released directly as a result of the sulphur content and amount of the fuels burned.
- 2) Oxides of nitrogen (NO_x) comprising nitric oxide and nitrogen dioxide created by the chemical combination of atmospheric oxygen and nitrogen the high temperature furnace combustion zone.
- 3) Dust being residual pulverised fuel ash (PFA).

Flue gas desulphurisation equipment (FGD) has been installed to remove over 90% of sulphur dioxide from the combustion gases to Units 3 and 4. The two remaining units (Units 1 and 2) are not fitted with this equipment and are to be operated at lower annual factors on coals of restricted sulphur content. Electrostatic

precipitators are used to reduce the amount of dust produced. Boosted Over-fired Air (BOFA) is used on Units 1, 3 and 4 to reduce emissions of oxides of nitrogen.

Each substance is continuously monitored to the standards required under Annex V Parts 3 and 4 of the Industrial Emissions Directive. Carbon dioxide emissions are controlled under the EUETS (European Union Emissions Trading Scheme). Emissions are discharged to atmosphere via four separate flues rising within a single windshield approximately 198m in height

The installation also discharges large volumes of cooling water, previously abstracted from the River Aire, back to the river after use in the cooling circuit and subsequent temperature reduction in natural draught cooling towers. These towers also discharge water vapour to the atmosphere. This discharge is frequently more visible than the discharge of combustion gases.

A considerable stock of the main fuel, bituminous coal, is held in profiled stockpiles on the installation site. Ash produced from the combustion process is sold where possible or otherwise transported, normally by pipeline as slurry, to a remote off-site ash disposal facility at Gale Common several miles from the installation. This facility is owned by Eggborough Power Limit and shared with Ferrybridge Power Station. The station also uses oil, mainly Heavy Fuel Oil and propane for start-up and flame stabilisation. Gypsum produced as a product by the FGD process is processed on site and sold. Power is supplied from the station to the national grid in line with demand. Variations in demand lead to frequent shutdown, start-up or turndown of the main units. This process can lead to very short-term visible emissions from the combustion stacks. Point A1 in this permit is the discharge point from the whole windshield – from the aggregate of four separate flues – Units 1, 2, 3 and 4 (listed previously as points A1-A4).

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
Permit VP3930LH determined	30/10/07	
Variation SP3839XF issued	20/12/07	
Application EPR/VP3930LH/V003 received	04/08/10	
Variation issued EPR/VP3930LH/V003	11/08/10	Update of company registered address
Variation determined EPR/VP3930LH/V004	11/03/13	Environment Agency Initiated variation to incorporate Eel Regulations improvement condition.
Agency variation determined EPR/VP3930LH/V005	05/03/14	Agency variation to implement the changes introduced by IED
Regulation 60 Notice sent to the Operator	31/10/14	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	30/03/15	Response received from the Operator.
Additional information received	30/06/15	Response to request for further information (RFI) dated 13/05/15
Additional information received	04/08/05, 24/08/15, 03/09/15	Information from operator regarding proposed ELVs
Environment Agency determined EPR/VP3930LH/V006	28/09/15	Environment Agency initiated variation to incorporate improvement condition IC14E

Status log of the permit		
Description	Date	Comments
Additional information received	27/11/15	Responses to request for further information
Variation determined EPR/VP3930LH/V007 (PAS Billing ref: WP3038AJ)	30/12/15	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
Gale Common Permit-Remote ash disposal site with separate PPC permit	UP3033LY	02/04/07

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/VP3930LH

Issued to

Eggborough Power Limited (“the operator”)

whose registered office is

**Eggborough Power Station
Eggborough
Goole
East Yorkshire
DN14 0BS**

company registration number **03782700**

to operate a regulated facility at

**Eggborough Power Station
Eggborough
Goole
East Yorkshire
DN14 0BS**

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/VP3930LH

This is the consolidated permit referred to in the variation and consolidation notice for application **EPR/VP3930LH** authorising,

Eggborough Power Limited (“the operator”),

whose registered office is

Eggborough Power Station

Eggborough

Goole

East Yorkshire

DN14 0BS

company registration number **03782700**

to operate an installation at

Eggborough Power Station

Eggborough

Goole

East Yorkshire

DN14 0BS

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”).

2.2 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: LCP134. 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, S1.1: LCP134 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.
- 2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP134. 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 S1.4.
- 2.3.7 For the following activities referenced in schedule 1, table S1.1: LCP134. 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.
- 2.3.8 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.9 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 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 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) surface water or groundwater specified in table S3.3;
 - (c) 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.
- (d) where condition 2.3.5 applies, the hours of operation since 1 January 2016; and
- (e) where condition 2.3.7 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 2.3.7) the operator shall submit an Air Quality Risk Assessment as outlined in the IED Compliance Protocol (condition 2.3.2).

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 2.3.7, 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.
- 4.3.8 The Environment Agency shall be given at least 7 days notice when in any year the operator changes from compliance with baseload to mid-merit emission limit values specified in Table S3.1.

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 Part A(1)(a): Burning of any fuel in an appliance with a rated thermal input of 50MW or more.	LCP134: Operation of four boilers (each 1348 MWth) burning coal and biomass for production of steam and electricity (5392 MW aggregated net rated thermal input) Operation of one package boiler burning gas oil for the production of steam (10.5 MWth)	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 Waste as defined in Table S2.2
A2	Section 4.2 Part A(1)(a)(iv): Producing inorganic chemicals such as salts	Operation of 2 Flue Gas Desulphurisation (FGD) units.	From receipt of raw materials to despatch of products and waste
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 the waste water from flue gas desulphurisation plant.	From receipt of raw materials to despatch of products and waste
A4	Section 3.5 Part B(f): Loading, unloading or storing pulverised fuel ash in bulk prior to further transportation in bulk.	Removal of ash from the combustion process to dispatch from site	From receipt of raw materials to despatch of products and waste
Directly Associated Activity			
A5	Directly associated activity	Fuel storage	From receipt of raw materials to dispatch for use
A6	Directly associated activity	Boiler water treatment.	The pumping, filtering and treatment of the water and its discharge as boiler water blow down into the cooling water circuit.

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	The use of river water from the River Aire in the process, primarily 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 Aire.
A8	Directly associated activity	Surface water drainage	Handling and storage of site drainage until discharge to the site surface water system.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	B2.1 and B2.2 and material referenced in these sections	15/03/06
Application	Document 15a introduction (relates to preferential use of FGD fitted units)	15/03/06
Receipt of additional information to the application	Response to question ME10 on the recycling of process water.	09/08/06
Receipt of additional information to the application	JEP derived fuel envelope specifications – supplied as additional information clarifying Doc 23 (Raw Materials) of application.	31/08/06
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 TNP compliance for LCP2 (now LCP134) and related operating techniques	30/03/15
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), 6 (MSUL and MSDL) and 8 (proposed ELVs)	30/06/15
Receipt of additional information to the regulation 60(1) Notice.	Confirmation of the compliance routes chosen for LCP2 (now LCP134)	21/12/15

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1E	<p>A written report shall be submitted to the Agency for approval. 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 in writing by the Agency.</p>	Complete
IC2E	<p>A written report shall be submitted to the Agency for approval. The report shall contain a protocol detailing the methodology for measuring the fraction of PM10 and PM2.5 within the release of total Dust from the combustion process. The protocol shall include but not be restricted to a variety of operating scenario 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>	Complete
IC3E	<p>A written report shall be submitted to the Agency for approval. 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 in writing by the Agency</p>	Complete
IC4E	<p>A written report shall be submitted to the Agency for approval. 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 in writing by the Agency.</p>	Complete
IC5E	<p>A written report shall be submitted to the Agency for approval. 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 in writing by the Agency.</p>	Complete
IC6E	<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/year by 2020. The report should consider scenarios for electricity demand in 2020 and give the planned arrangements for SO₂ emissions</p>	01 April 2016

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	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 shall be implemented after approval by the Environment Agency.	
IC7E	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. 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 the report shall be implemented by the Operator from the date of approval by the Environment Agency.	31/12/16
IC8E	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
IC9E	The operator shall review the methods used for the sampling and analysis of water from the station inlet and discharges (and process monitoring) to ensure that the most suitable method is used and that the limit of detection is appropriate. The report shall include actions and timescales for the implementation of any improvements identified during the review. These actions shall be implemented in accordance with the timescales approved in writing by the Agency.	Complete
IC10E	The operator shall provide a written report detailing a mass balance of copper in water for the installation. A written report shall be made to the Agency detailing the results of the analytical work; the uncertainties associated with the analysis, the mass balance for copper through and from the site and identifying any areas where copper could be added to the process. The report shall then contain proposals, to ensure that all appropriate measures are used to ensure no significant contribution to the background concentration of copper in receiving waters from the permitted installation. These measures shall be implemented in accordance with timescales approved in writing by the Agency.	Complete
IC11E	The operator shall confirm in writing to the Agency the programme for de-commissioning of the coal plant lubricating and gas oil tanks and details of improved containment for the emergency diesel generator gas oil tank. The operator shall: provide details and location of any new or revised facilities for the above items showing that these comply with the Oil Storage Regulations and confirm removal, improvement or re-location of the contractor's gas oil tank and if not removed, confirm the ownership and management responsibility chain for this tank to the Agency.	Complete
IC12E	A written plan shall be submitted to the Agency for approval detailing the results of a survey of hard-standing, kerbing, drainage and secondary containment for raw material, intermediate, product and waste storage areas and the measures to comply with the requirements of section 2.2.5 of the Combustion Sector TGN.(see operator schedule 4 additional information response SE1).The submitted plan shall also include	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>updated whole site drainage layout drawings (stated to be unavailable in Schedule 4 response ME9)</p> <p>Where appropriate, the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. The plan shall be implemented by the operator from the date of approval by the Agency.</p>	
IC13E	<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> <p>Providing a written proposal for the installation of an eel screen.</p> <p>Providing a written proposal to the modification of existing screening arrangements.</p> <p>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.</p> <p>Providing a written response setting out a case for an exemption</p> <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
IC14E	<p>The operator shall provide a report detailing how the operation of the plant can be optimised with the aim of achieving the Emission Limit Values (the "sector ELVs") set out in the Environment Agency and Natural Resources Wales paper 'IED BAT ESI Review paper 28 October 2014'.</p> <p>The report shall –</p> <ol style="list-style-type: none"> consider the use of all available techniques including, but not limited to, coal diet and the use of mixed techniques involving the operation of the abated / unabated Flue Gas Desulphurisation plant in various combinations, as described in "TWG3 'Mixed Techniques Operating Regime and BAT'". include a summary of the emissions monitoring data across the stack (windshield) for each plant optimisation trial and shall report these emissions as both monthly absolute and daily 95th percentile averages. If its conclusion is that it is not possible to achieve the sector ELVs, provide evidence of why this is so and propose alternative ELVs which are as close to the sector ELVs as possible. 	31/01/16
IC15E	<p>For LCPD LCP134. 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</p>	28/01/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	NERP Registry.	
IC16E	The operator shall submit a copy of the air quality monitoring and modelling results to demonstrate compliance with air quality standards for sulphur dioxide, oxides of nitrogen and particulate (PM10) during 2015, following the format and requirements of previous years submissions to the Environment Agency.	30/06/16

Table S1.4 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 LCP134 Unit 1	280 MW; 58.3%	200 MW; 41.7%
A1 LCP134 Unit 2	280 MW; 58.3%	200 MW; 41.7%
A1 LCP134 Unit 3	280 MW; 56%	200 MW; 40%
A1 LCP134 Unit 4	280 MW; 56%	200 MW; 40%

Schedule 2 – Waste types, 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 3(31) of EU Directive 2010/75/EC and included in the application or otherwise as approved in writing by the Agency.

Waste code	Description
Relevant exempt waste biomass code	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 approved in writing by the Agency
Relevant exempt waste code	Other fuels exempt from the requirements of the Waste Incineration Directive 2000/76/EC and included in the application or otherwise approved in writing by the Agency.

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. 134 Coal fired boiler plant	400 mg/m ³ Note 2	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. 134 Coal fired boiler plant	550 mg/m ³ until 31/03/16 Note 2 460 mg/m ³ from 01/04/16 Note 1 Note 2	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 ₂ expressed as NO ₂)	LCP No. 134 Coal fired boiler plant	450 mg/m ³ Note 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. 134 Coal fired boiler plant	550 mg/m ³ Note 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. 134 Coal fired boiler plant	450 mg/m ³ until 31/03/16 Note 2 300 mg/m ³ from 01/04/16 Note 1 Note 2	Calendar monthly mean	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 134 Coal fired boiler plant	550 mg/m ³ until 31/03/16 Note 2 400 mg/m ³ from 01/04/16 Note 1 Note 2	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. 134 Coal fired boiler plant	500 mg/m ³ until 31/03/16 Note 3 350 mg/m ³ from 01/04/16 Note 1 Note 3	Calendar monthly mean	Continuous	BS EN 14181
A1 [Point A1 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 134 Coal fired boiler plant	600 mg/m ³ until 31/03/16 Note 3 440 mg/m ³ from 01/04/16 Note 1 Note 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. 134 Coal fired boiler plant	30 mg/m ³ until 31/03/16 Note 2 20 mg/m ³ from 01/04/16 Note 1 Note 2	Calendar monthly mean	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Dust	LCP No. 134 Coal fired boiler plant	45 mg/m ³ until 31/03/16 Note 2 35 mg/m ³ from 01/04/16 Note 1 Note 2	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. 134 Coal fired boiler plant	30 mg/m ³ until 31/03/16 Note 3 20 mg/m ³ from 01/04/16 Note 1 Note 3	Calendar monthly mean	Continuous	BS EN 14181
A1 [Point A1 on site plan in Schedule 7]]	Dust	LCP No. 134 Coal fired boiler plant	45 mg/m ³ until 31/03/16 Note 3 35 mg/m ³ from 01/04/16 Note 1 Note 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. 134 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. 134 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. 134 Coal fired boiler plant	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [Point A1 on site plan in Schedule 7]	Stack gas pressure	LCP No. 134 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 volume flow	LCP No. 134 Coal fired boiler plant	-	-	Continuous	BS EN 16911 & TGN M2
A1 [Point A1 on site plan in Schedule 7]	Total mercury	LCP No. 134 Coal fired boiler plant	-	-	Annual	BS EN 13411
A1 [Point A1 on site plan in Schedule 7]	As required by the Method Implementation Document for BS EN 15259	LCP No. 134 Coal fired boiler plant	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A5	-	Package boiler	No limit set	-	-	-
B1-6, C1-26 Coal plant Dust extraction	Dust	Filtered dust vents	No limit	-	-	-
C27-31 Coal plant garage	Dust	Extracted ventilation air	No limit	-	-	-
D1-2 Ash plant	Dust	Filtered dust vents	No limit	-	-	-
D3 Ash swirl pit	Dust	Dust from slurring	No limit	-	-	-
G1-4 FGD gypsum silo vents	Dust	Filtered dust vents	No limit	-	-	-
L1-3 FGD limestone plant vents	Dust	Filtered dust vents	No limit	-	-	-
G5 FGD plant – gypsum silo roof	Dust/condensation	Extracted ventilation air	No limit	-	-	-
F1-2 FGD Absorber Roof vent	Dust/condensation	Scrubbed flue gas	No limit	-	-	-

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
F3 HCl Tank vent loading scrubber	Scrubbed acid vapour/ displacement air	Hydrochloric acid (HCl) storage	No limit	-	-	-
F4 Caustic soda Tank vent	Caustic vapour/ displacement air	Sodium hydroxide storage	No limit	-	-	-
CO 1-4	Carbon dioxide	Generator CO2 purge	No limit	-	-	-
Th1	CO ₂ /SO ₂ / NO ₂ Particulate	Engine exhaust	No limit	-	-	-
T1-4	Oil vapour	Turbine bearings	No limit	-	-	-
P1-2	CO ₂ /SO ₂ / NO ₂ Particulate	Package hot water boilers 2* 7.3 Mw	No limit	-	-	-
<p>Note 1: Limit subject to the response to IC14E in Table S1.3 (due by 31/01/16) and written approval by the Environment Agency.</p> <p>Note 2: This emission limit applies for base-load operation.</p> <p>Note 3: This emission limit applies for mid-merit operation and the LCP shall not operate for more than 4000 hours per annum.</p>						

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 on site plan in schedule 2 SE 5850 2510 emission to River Aire	Total suspended solids	Purge pit outfall	No limit set	Monthly average of weekly spot sample	Weekly – analysed weekly and reported monthly as monthly average	BS EN 872
	pH		6-9	Instantaneous	Continuous Reported monthly as min max and average pH	BS EN ISO 10523
	Temperature		30°C	Instantaneous	Continuous Reported monthly as min max and average temperature	Traceable to national standards
	Flow		126 000 m ³ /day	24 hour period beginning 00.01	Continuous Reported monthly as min max and average daily flow	Traceable to national standards
	Total copper		0.2 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	As per current version of M18 guidance
	Copper (on filtered sample)		0.1 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	As per current version of M18 guidance
	Mercury and its compounds, expressed as mercury (Total Hg)		0.005 mg/l	Monthly spot sample	Monthly	BS EN13506
	Cadmium and its compounds, expressed as cadmium (Total Cd)		0.01 mg/l	Monthly spot sample	Monthly	As per current version of M18 guidance
W2 FGD waste water treatment plant outlet	Flow	Outlet from FGD waste water treatment	3,000 m ³ /day	24 hour period beginning 00.01	Continuous Reported monthly as min max and average daily flow	BS 3680

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
	Total suspended solids		40 mg/l	Monthly average of weekly spot sample	Weekly – analysed weekly and reported monthly as monthly average	BS EN 872

Table S3.3 Surface water monitoring requirements

Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
SWMP1 Culverted Hensall Dyke immediately downstream of station filter beds	Total suspended solids	Weekly (log no flow conditions)	BS EN 872	< 40 mg/l - for 95% of all measured values of periodic samples taken over one year(rolling) - no flow conditions to be logged. Report 6-monthly

Table S3.4 Process monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method Note 1	Other specifications
Process water intake from River Aire	Total suspended solids	Weekly	BS EN 872	analysed weekly and reported as monthly average
Process water intake from River Aire	Copper content (filtered)	Weekly	BS 6068	analysed weekly and reported as monthly average
Process water intake from River Aire	Total copper	Weekly	BS 6068	analysed weekly and reported as monthly average
W2 Discharge from FGD Waste water treatment plant	pH	Continuous	BS EN ISO 10523	Reported monthly as min max and average pH
W2 Discharge from FGD Waste water treatment plant	Flow	Continuous	Traceable to national standards	Reported monthly as min max and average daily flow
W2 Discharge from FGD Waste water treatment plant	Mercury and its compounds, expressed as mercury (Total Hg)	Monthly	BS EN 13506	Reported monthly
W2 Discharge from FGD Waste water treatment plant	Cadmium and its compounds, expressed as cadmium (Total Cd)	Monthly	BS 6068-2.89	

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method Note 1	Other specifications
W2 Discharge from FGD Waste water treatment plant	Total copper	Monthly	BS 6068	
W2 Discharge from FGD Waste water treatment plant	Copper (on filtered sample)	Monthly	BS 6068	
W2 Discharge from FGD Waste water treatment plant	Chloride	Monthly	Note 1	
W2 Discharge from FGD Waste water treatment plant	Fluoride	Monthly	Note 1	
Note 1: As below or as method in current edition of M18 guidance unless otherwise approved in writing by the Agency.				

Schedule 4 – Reporting

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

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, W2	Every 3 months	1 January, 1 April, 1 July, 1 October
Surface water monitoring Parameters as required by condition 3.5.1	SWMP 1	Every 6 months	1 January, 1 July
Process monitoring Parameters as required by condition 3.5.1	W2 Discharge from FGD Waste water treatment plant	Every 6 months	1 January, 1 July

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

Table S4.2: Resource Efficiency Metrics	
Parameter	Units
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
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
Resource Efficiency	Form REM1 – resource efficiency annual report	01/01/16	National	31/12/15
Water	Form water 1 and Water 2 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.

“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 Comité Européen de Normalisation.

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

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

“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 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.

“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.

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

“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.

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

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (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.

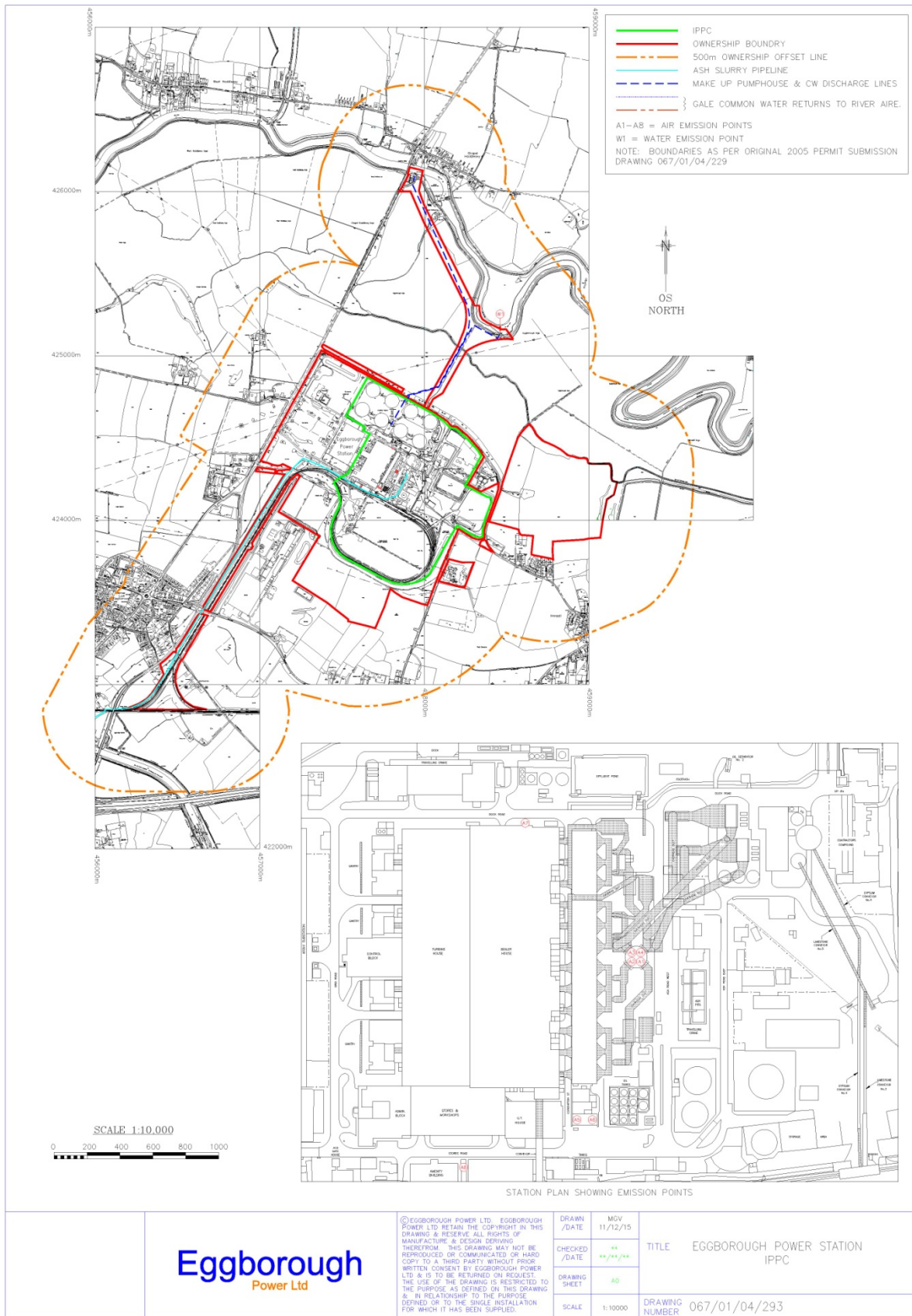
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



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END OF PERMIT

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