



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Keadby Generation Limited
Ferrybridge C Power Station
P.O Box 39
Stranglands Lane
Knottingley
West Yorkshire
WF11 8SQ

Variation application number

EPR/VP3337SR/V009

Permit number

EPR/VP3337SR

Ferrybridge C Power Station

Permit number EPR/VP3337SR

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 ELV approach.

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

LCP256 is changed to LCP307;

LCP257 is changed to LCP308;

GT5 (no LCP reference previously) is now LCP386; and

GT8 (no LCP reference previously) is now LCP458

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. A number of errors have been corrected in Table S3.2 Point source emissions to water and W7 has replaced W3 in this table following re-siting of the purge pit outfall discharge point.

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

The electric power generation installation operated by Keadby Generation Limited Ltd, a part of Scottish and Southern Energy plc, at Ferrybridge is a major power station using coal, biomass and oil as fuel. It is situated in West Yorkshire, on a site close to the town of Knottingley with the M62 motorway close by to the south and with the A1 and former A1 trunk roads to west and east of the site. On the east side of the site runs the River Aire.

The installation comprises two 1,355 MW (2,710 MW total aggregated net rated thermal input) pulverised coal fired boilers/turbo-generator units, capable of generating in total 1,030MW electricity at full output (LCP308) – known on the site as Units 3 and 4. The installation also includes two 58 MW (net rated thermal input) standby gas-oil fired open cycle turbines driving electrical generators (LCP386 and LCP458). These units are “black start” turbines which operate only occasionally and normally only when required by adverse distribution grid conditions or for testing.

The permit also lists LCP307 which opted out of the LCPD and ceased operation in March 2014. LCP307 has been retained in the permit as the activities associated with it cannot yet be surrendered, but is not allowed to operate under the current permit.

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) was installed in 2008 to remove over 90% of sulphur dioxide from the combustion gases to Units 3 and 4 (LCP308). Units 1 and 2 (LCP307) were opted out of the Large Combustion Plant Directive and formally closed on 31 March 2014. Electrostatic precipitators are used to reduce the amount of dust produced. Ultra low 'NO_x' burners have been installed on both units which, in conjunction with the use of Boosted Over-fired Air (BOFA), 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 a single chimney stack approximately 200m 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. Furnace bottom ash (FBA) is pumped as slurry to lagoons located on the east bank of the River Aire, to the west of the village Brotherton, from where it is recovered and sold. Pulverised fuel ash (PFA) is predominantly pumped as slurry, to a remote off-site ash disposal facility at Gale Common several miles from the installation. This facility is owned by and shared with Eggborough Power Limited. Some PFA ash may also be disposed of as slurry to emergency ash lagoons north east of the site. These are owned by Keadby Generation Limited. 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.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application VP3337SR	Duly made 30/03/06	
Additional Information Received	S4 issued 05/07/06	31/07/06
S4 follow-up information	14/08/06	29/09/06
FGD BAT case	22/09/06	
FGD BAT case further info	06/11/06	
FGD installation outline information	06/10/06 (extra FGD info)	
FGD installation outline information further queries	25/10/06	Further information received 09/11/06
Permit determined	30/10/07	

Status log of the permit		
Description	Date	Comments
Variation EP3131XE determined (V002)	23/05/08	
Application TP3432TH - 003	Withdrawn by applicant May 10	
Application EPR/VP3337SR/V004	23/09/10	
Additional Information received	06/10/10	
Application fee received	22/10/10	(app duly made 25/10/10)
Variation determined	15/11/10	
Variation determined EPR/VP3337SR/V005	26/02/13	Environment Agency Initiated Variation, to incorporate Eel Regulations improvement condition.
Variation application EPR/VP3337SR/V006	Duly made 28/01/13	
Variation determined EPR/VP3337SR/V006	01/03/13	
Agency variation determined EPR/VP3337SR/V007	04/03/14	Agency variation to implement the changes introduced by IED
Application EPR/VP3337SR/T008 (part transfer of permit EPR/VP3337SR)	Duly made 17/10/14	Application for part transfer
Regulation 60 Notice sent to the Operator	08/12/14	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
Part Transfer and variation determined EPR/VP3337SR/T008 [Billing Ref:AP3139WS]	17/12/14	Variation of EPR/VP3337SR to accommodate changes brought about by the part transfer of land to Ferrybridge MFE Limited (EPR/SP3239FU)
Regulation 60 Notice response	27/03/15	Response received from the Operator.
Additional information received	27/05/15	Response to request for further information (RFI) dated 12/05/15 and letter confirming cessation of Unit 4 operation
Additional information received	11/08/15	Withdrawal of proposal for limited hours derogation (LHD) compliance route
Additional information received	17/11/15, 19/11/15, 23/11/15	Responses to request for further information
Variation determined EPR/VP3337SR/V009 (PAS Billing ref: FP3438AZ)	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
Keadby Generation Ltd Brotherton Ings waste disposal permit	RP3930BD	02/04/2007
Eggborough Power Ltd Gale Common waste disposal permit – remote ash disposal site shared with Eggborough Power Station and operated under a separate PPC permit by Eggborough Power Ltd	UP3033LY	02/04/2007

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/VP3337SR

Issued to

Keadby Generation Limited ("the operator")

whose registered office is

Keadby Power Station

PO Box 89

Keadby

Scunthorpe

North Lincolnshire

DN17 3AZ

company registration number **02729513**

to operate a regulated facility at

Ferrybridge C Power Station

P.O Box 39

Stranglands Lane

Knottingley

West Yorkshire

WF11 8SQ

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/VP3337SR

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3337SR/V009 authorising,

Keadby Generation Limited (“the operator”),

whose registered office is

Keadby Power Station

PO Box 89

Keadby

Scunthorpe

North Lincolnshire

DN17 3AZ

company registration number **02729513**

to operate an installation at

Ferrybridge C Power Station

P.O Box 39

Stranglands Lane

Knottingley

West Yorkshire

WF11 8SQ

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: LCP308, LCP 386 and LCP 458. 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: LCP 386 and LCP 458. The activities shall not operate for more than 500 hours per year.
- 2.3.6 For the following activities referenced in schedule 1, S1.1: LCP308. 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.
- 2.3.7 For the following activities referenced in schedule 1, table S1.1: LCP308, LCP 386 and LCP 458. 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
- 2.3.8 For the following activities referenced in schedule 1, table S1.1: LCP308. 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.

- 2.3.9 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.10 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.
- 2.3.11 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 activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.
- 2.5.2 The operations specified in schedule 1 table S1.4B 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 A2 listed in schedule 3 table S3.1, measured during periods of abatement equipment malfunction and breakdown shall be disregarded for the purposes of compliance with Table S3.1 emission limit values.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

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

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

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

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

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

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1 and S3.2
- (b) process monitoring specified in table S3.3.

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

- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 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 in any year;
- (e) where condition 2.3.6 applies, the hours of operation since 1 January 2016; and
- (f) where condition 2.3.8 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 2.3.8) 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 2.3.8, 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), or 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 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<p>LCP307: Non-operational LCP</p> <p>LCP308: Operation of two boilers (each 1355 MWth) burning coal and biomass for production of steam and electricity (2710 MW aggregated net rated thermal input)</p> <p>LCP386: GT5 Operation of an open cycle gas turbine (OCGT) burning gas oil to produce electricity (58 MW net rated thermal input)</p> <p>LCP458: GT8 Operation of an open cycle gas turbine (OCGT) burning gas oil to produce electricity (58 MW net rated thermal input)</p> <p>PB1: Operation of an 8 MW net rated thermal input package boiler burning gas-oil to produce steam to keep the heavy fuel oil mobile.</p> <p>PB2: Operation of an 8 MW net rated thermal input package boiler burning gas-oil to produce steam to keep the heavy fuel oil mobile.</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>LCP386 and LCP458 shall only be used during emergency conditions or for testing less than 500 hours per year.</p> <p>Wastes as specified in Table 2.2</p>
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

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
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.
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	The response to sections B1 and B2 (and documentation referred to in these sections) in the Application	31/03/06
Schedule 4 Notice Request dated 05/07/06	Response to questions M1 to M9 and M12	31/07/06 and 14/08/06
Additional information on minor vents to air	Other station minor vents – list supplied by RW of SSE in email 21/02/07, 16:06	21/02/07
Clarification on coal plant domestic sewage handling relating to separation from discharge W1	Email response dated 22/03/2007 from RW of SSE to JP - Item 6 only	22/03/2007
Receipt of additional information to the application	Additional information relating to Flue Gas Desulphurisation (URS report dated 6/10/2006, Issue No3 44319761/ LERP00001) including revision to site boundary Figure 2.1-2 rev1, dated OCT 2006	October 2006
Response to Schedule 1 Table S1.5 requirement – Appropriate measures for Fugitive emissions.	All	29 May 2008
Variation application EPR/VP3337SR/V006	URS report, Ferrybridge 'C' Power Station, Environmental Permit VP3337SR - Minor Technical Variation, Rev 2, January 2013 including Appendix B (Figures 1 and 2)	28/01/2013
Response to regulation 60(1) Notice – request for information dated 08/12/14	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 route for LCP257 (now LCP308) and related operating techniques	Received 27/03/15
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 12/05/15	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).	Received 27/05/15
Letter confirming cessation of Unit 4 operation	Confirmation that Unit 4 will not return to operational service	1 June 2015
Email confirming net rated thermal input of gas turbines	All	19/11/15
Receipt of additional information to the regulation 60(1) Notice. dated 12/05/15	Confirmation of the compliance routes chosen for LCP257 (now LCP308)	21/12/15

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC1FB	<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
IC2FB	<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
IC3FB	<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
IC4FB	<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

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC5FB	<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
IC6FB	<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 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>	01 April 2016
IC7FB	<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 the report shall be implemented by the Operator from the date of approval by the Environment Agency.</p>	31/12/16
IC8FB	<p>A written procedure shall be submitted to the Agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the operator from the date of approval in writing by the Agency.</p>	Complete
IC9FB	<p>The operator shall submit a written review of 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, that the limit of detection is appropriate and that mass discharge rates can be derived from test results.</p> <p>The report shall include proposed actions and timescales for the implementation of any improvements or modifications to sampling testing and analysis requirements identified during the review.</p> <p>These actions shall be implemented by the Operator from the date of approval in writing by the Agency.</p>	Complete

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC10FB	<p>The operator shall provide a written report to the Agency examining and detailing the mass balance of copper in water over the installation.</p> <p>The report shall discuss the results of the analytical work and copper mass balance across the site, the uncertainties associated with the analyses and mass balance, identifying any areas in the process where copper releases might occur. The report shall additionally contain proposals, if necessary, 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.</p> <p>These actions shall be implemented in accordance with the timescales and any modifications approved in writing by the Agency. (see application section 5 item IP6 – investigation of sources of copper from the installation in wastewater discharges and identifying potential solutions to minimise discharges of copper from the site.)</p>	Complete
IC11FB	The operator shall confirm in writing to the Agency measures in place to prevent contamination of ground and groundwater at emission point W6 and in the area served by it.	Complete
IC12FB	The operator shall review generation efficiency of units and propose an upgrade programme for any significantly lower efficiency unit(s) in writing to the Agency. The operator shall implement the upgrade programme from the date of approval by the Agency and confirm completion in writing to the Agency.	Complete
IC13FB	The operator shall confirm commissioning and proving proposals and schedules for the FGD installation and update this information in writing to the Agency each month until completion of FGD commissioning. (see application section 5 item IP4)	Complete
IC14FB	The operator shall produce separate commissioning reports for each unit fitted with FGD demonstrating that that each unit meets or exceeds the performance parameters notified to the agency (2001/80/EC)	Complete
IC15FB	The operator shall submit a report for outlets W1,W2, W3 showing the levels and variation in BOD / dissolved oxygen in these outlets in writing to the Agency.	Complete
IC16FB	The operator shall report in writing to the Agency on the composition and quantity of theFGD Waste Water Treatment Plant's discharge effluent flow and the changes to the stations discharge to water.	Complete
IC 17FB	The operator shall carry out test processing of acid clean washings as per the proposal submitted in the application. Monitor the test disposal and report results in writing together with a methodology for continuing to use the proposed method if the test processing can be shown to be appropriate. Implement the methodology from the date of written approval by the Agency.	Report to be submitted 4 weeks after undertaking the next 'acid clean'.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC18FB	The operator shall confirm completion or otherwise in writing to the Agency of the programme to modify combustion equipment to meet or exceed the performance required for nitrogen oxides emissions(in LCPD 2001/80/EC) and the Future Regulatory Framework for Coal and Oil fired Power Stations for 2008-15 as included in Section 5 of application, item IP2.	Complete
IC19FB	The operator shall confirm completion or otherwise in writing to the Agency of the programme to install PF ropebreakers as included in Section 5 of application, items IP3.	Complete
IC20FB	The operator shall confirm in writing to Agency the thermal efficiency of the package boiler plant (emission point A3) and the future planned maintenance programme for this plant.	Complete
IP21FB	The operator shall review methods for monitoring, fault detection and fault shutdown provisions at emission points to air protected by cyclovents or filtration equipment. Also review reporting and maintenance procedures for these emission points. The operator shall confirm the findings of reviews to the Agency in writing together with proposals for improvement where current methods are not at BAT (Best Available Techniques) standards. The operator shall implement improvement proposals as soon as practicable after the date of receiving written approval from the Agency.	Complete
IC22FB	The operator shall examine levels of free chlorine including after “shock dosing” prior to maintenance in W3 and demonstrate in a written report to the Agency that current controls are BAT or propose improvement to control/dosing procedures.. Also report to the Agency in writing any limitations in testing /control imposed by the testing methods available for this determinand,	Complete
IC23FB	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. Where appropriate, the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. The plan shall be implemented by the operator from the date of approval by the Agency.	Complete
IC24FB	The Operator shall submit in writing, on a three monthly basis, a report on operating hours and releases to air from the CCP for that 3-monthly period. The report shall be submitted to the Environment Agency by the 28th of the month following the end of each reporting period.	Complete
IC25FB	The Operator shall submit in writing, on an annual basis, a report detailing the number of hours of operation of the CCP, total solvent use and emissions, plant performance in relation to emissions and to the research objectives set out in Section 2.1.2 of the Variation Application (in URS technical report Issue No4 49306705) and a revised environmental impact assessment based on monitored release data. This report shall be submitted to the Environment Agency by the 28th of the month following the end of the reporting period.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC26FB	The Operator shall confirm in writing the permanent cessation of the CCP trial. The Operator shall also confirm the CCP related inventory of solvents / waste solvents at the time of cessation of the CCP trial and the mechanism and time scale by which they are to be removed from site. This notification shall be submitted to the Environment Agency within 2 weeks of cessation of the CCP trial.	Complete
IC27FB	Upon permanent cessation of the CCP trial, the Operator shall submit in writing a report which provides the findings of the trial in relation to the research objectives set out in Section 2.1.2 of the Variation Application. The report shall be submitted to the Environment Agency within 3 months of permanent cessation of the CCP trial.	Complete
IC28FB	<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
IC29FB	For LCPD LCP308, LCP386 and LCP458: 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
IC30FB	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 S1.4A Pre-operational measures	
Reference	Pre-operational measures
PO1	For the following activities referenced in schedule 1, table S1.1: LCP307. Operations shall not commence on the installation until the operator has submitted a report in writing to the Environment Agency for approval, demonstrating compliance with Chapter III of the Industrial Emissions Directive, and has obtained written approval from the Environment Agency.

Table S1.4B Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
S1.4.1 FGD further info response 11/06 by operator	Future modifications to water discharge system. (In particular the proposal to resite existing discharge to River Aire W3 and rename as W7)	The operator shall confirm procedure for maintaining up to date information on the water discharge system and any modifications to it. Confirm any proposed changes to quality and/or flow details of installation discharges to water. Report in writing to the Agency and implement changes after written agreement by the Agency. Complete
S1.4.2 Application Section 5 item IP4	Flue gas desulphurisation (FGD) construction	The operator will provide further details of the finalised FGD design and impact assessment prior to commissioning. Complete
S1.4.3 FGD additional information Dated August 2006	Process control and monitoring of FGD process	The operator shall provide full details including type arrangement and spec of continuous instrumentation and show compliance with M2 guidance and other appropriate standards. Specify what interlocks controlling use of FGD are fitted. Complete
S1.4.4 FGD info responses from operator 9/11/06 to 25/10/06 queries	Commissioning plan and schedules. Details of commissioning tests (Q1)	The operator shall provide details and dates of commissioning and acceptance testing proposals for newly constructed FGD. Complete
S1.4.5 FGD info responses from operator 9/11/06 to 25/10/06 queries	Chimney modifications (Q2)	The operator shall provide details and drawings of chimney as modified for FGD operation –include spec of newly installed materials and drainage provision. Completed.
S1.4.6 FGD info responses from operator 9/11/06 to 25/10/06 queries	FGD absorber and post absorber duct specifications (Q3/12)	The operator shall provide details and drawings of FGD absorber and post absorber ducting including drainage provision in ducting and demister construction and performance specification. Complete

Table S1.4B Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
S1.4.7 FGD info responses from operator 9/11/06 to 25/10/06 queries	WWTP performance (Q5)	The operator shall provide answers to Q5 of 25/10/06 agency queries list. Complete
S1.4.8 FGD info responses from operator 9/11/06 to 25/10/06 queries	Manning training control and maintenance of FGD plant (Q6)	The operator shall provide details (include information on management chain and links with unit operator/shift charge engineer) . Completed.
S1.4.9 FGD info responses from operator 9/11/06 to 25/10/06 queries	Start up and shut down of FGD (Q13)	The operator shall provide answers to Q13 of 25/10/06 agency queries list. Complete
S1.4.10 FGD info responses from operator 9/11/06 to 25/10/06 queries	Absorber oxidation air (Q15)	The operator shall provide answers to Q15 of 25/10/06 agency queries list. Complete
S1.4.11 CCP solvent use controls to AIR	Pre-operational measures for monitoring and reporting CCP solvent use and releases to air	The Operator shall propose and justify, in writing, methods of analysis, including equipment and sample point location, used to determine solvent, and solvent decomposition / reaction products, in releases to atmosphere from the CCP. Upon written approval from the Environment Agency, the proposals shall be implemented and adhered to, unless otherwise agreed in writing by the Agency. Complete
S1.4.12 CCP odour management plan:	Pre-operational measures for monitoring and reporting any CCP odour issues.	The Operator shall propose and justify, in writing, methods of monitoring, recording and reporting at regular intervals, odours associated with the CCP. The Operator shall modify the Installation Incident and Complaints procedure so as to include the CCP. Upon written approval from the Agency, the proposals shall be implemented and adhered to, unless otherwise agreed in writing by the Environment Agency. Complete

Table S1.4B Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
S1.4 13 CCP solvent use controls to WATER	Pre-operational measures for monitoring and reporting CCP solvent use and releases to water	<p>The operator shall produce an operational protocol to address potential release of any amine containing material from CCP operations to water. A periodic testing regime (monthly or more frequent) shall be proposed to demonstrate that any releases to water from operations or material storage do not contain amines at above 10(ten) times the limit of detection (LOD) of the test used to detect amine. Specify the amine test to be used and the associated LOD. The protocol should include on site permanent recording of test results with dates and sample point location/s or logging of "no discharge to water" for each period. These records should be kept for the operational life of the CCP and for two years after operation ends and any positive tests obtained reported to the Environment Agency under existing notification procedures. This protocol shall be submitted by the operator to the Environment Agency in writing. The installation shall not use or store amine materials other than in laboratory quantities until the submitted protocol has been approved in writing by the Environment Agency. The operator shall implement the protocol after approval.</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 (%) Or when the criteria listed below have been met	“Minimum Shut-Down Load” Load in MW and as percent of rated power output (%) Or when the criteria listed below have been met
A2 LCP308 Unit 3	290 MW; 21%	290 MW; 21%
A2 LCP308 Unit 4	290 MW; 21%	290 MW; 21%
A4 LCP386 GT5	As soon as the gas turbine start-up is initiated	As soon as the gas turbine is off-load
A5 LCP458 GT8	As soon as the gas turbine start-up is initiated	As soon as the gas turbine is off-load

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 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 for use in the installation.

Schedule 3 – Emissions and monitoring

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]	-	LCP No. 307 Coal fired boiler plant Note 1	-	-	-	-
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 308 Coal fired boiler plant	400 mg/m ³ Note 2	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 308 Coal fired boiler plant	460 mg/m ³ Note 2	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 308 Coal fired boiler plant	300 mg/m ³ Note 2	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 308 Coal fired boiler plant	400 mg/m ³ Note 2	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Dust	LCP No. 308 Coal fired boiler plant	20 mg/m ³ Note 2	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Dust	LCP No. 308 Coal fired boiler plant	35 mg/m ³ Note 2	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 308 Coal fired boiler plant	450 mg/m ³ Note 3	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 308 Coal fired boiler plant	550 mg/m ³ Note 3	95% of validated daily means within a calendar year	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A2 [Point A2 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 308 Coal fired boiler plant	350 mg/m ³ Note 3	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Sulphur Dioxide	LCP No. 308 Coal fired boiler plant	440 mg/m ³ Note 3	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Dust	LCP No. 308 Coal fired boiler plant	20 mg/m ³ Note 3	Calendar monthly mean	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]]	Dust	LCP No. 308 Coal fired boiler plant	35 mg/m ³ Note 3	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]]	Oxygen	LCP No. 308 Coal fired boiler plant	-	-	Continuous As appropriate to reference	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Water Vapour	LCP No. 308 Coal fired boiler plant	-	-	Continuous As appropriate to reference	BS EN 14181
A2 [Point A2 on site plan in Schedule 7]	Stack gas temperature	LCP No. 308 Coal fired boiler plant	-	-	Continuous As appropriate to reference	Traceable to national standards
A2 [Point A2 on site plan in Schedule 7]	Stack gas pressure	LCP No. 308 Coal fired boiler plant	-	-	Continuous As appropriate to reference	Traceable to national standards
A2 [Point A2 on site plan in schedule 7]	Stack gas volume flow	LCP No. 308 Coal fired boiler plant	-	-	Continuous	BS EN 16911 & TGN M2
A2 [Point A2 on site plan in Schedule 7]	Total mercury	LCP No. 308 Coal fired boiler plant	-	-	Annual	BS EN 13211

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A2 [Point A2 on site plan in Schedule 7] (This row is needed for all variations)	As required by the Method Implementation Document for BS EN 15259	LCP No. 308 Coal fired boiler plant	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A4 [Point A4 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 386 (GT5) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A4 [Point A4 on site plan in schedule 7]	Sulphur dioxide	LCP No. 386 (GT5) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A4 [Point A4 on site plan in schedule 7]	Dust	LCP No. 386 (GT5) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A4 [Point A4 on site plan in schedule 7]	CO	LCP No. 386 (GT5) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A5 [Point A5 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 458 (GT8) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2	Agreed in writing with the Environment Agency

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
					years, whichever is sooner	
A5 [Point A5 on site plan in schedule 7]	Sulphur dioxide	LCP No. 458 (GT8) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A5 [Point A5 on site plan in schedule 7]	Dust	LCP No. 458 (GT8) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A5 [Point A5 on site plan in schedule 7]	CO	LCP No. 458 (GT8) Gas turbine fired on gas oil	-	-	Concentration by calculation, every 4380 operational hours or 2 years, whichever is sooner	Agreed in writing with the Environment Agency
A3	Dust	Package boiler stack (<20MWth)	No limit set	-	-	-
A6 Cyclovent 1: (Wet Cyclone)	Dust	Biomass Store	No limit set	-	-	-
A7 Cyclovent 2: (Wet Cyclone)	Dust	Biomass system Tower D	No limit set	-	-	-
A8 Cyclovent 3: (Wet Cyclone)	Dust	Biomass system Tower E	No limit set	-	-	-
A9 Cyclovent 4: (Wet Cyclone)	Dust	Coal /biomass bunkers	No limit set	-	-	-
A10 Cyclovent 5: (Bag filter)	Dust	Biomass Road unloading	No limit set	-	-	-

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
		hopper				
A11 Cyclovent 6: (Bag filter)	Dust	Biomass Day Silos	No limit set	-	-	-
A12 Cyclovent 7: (Bag filter)	Dust	Biomass Day Silos	No limit set	-	-	-
A13 Cyclovent 8: (Bag filter)	Dust	Biomass Storage Silo	No limit set	-	-	-
A14 Cyclovent 9: (Bag filter)	Dust	Biomass transfer house	No limit set	-	-	-
Fuel Mill vents	Dust	Fuel Mill area in the Boiler house	No limit set	-	-	-
FV Flash vessel vents	Non combustible gas and water vapour/steam	Boiler/turbine house	No limit set	-	-	-
SRV Safety Relief Valves	steam	Main boilers	No limit set	-	-	-
Boiler Explosion Vents	Dust/ Steam Combustion gases	Top of main boilers, inside boiler house.	No limit set	-	-	-
Sulphur Trioxide Plant Steam supply Safety Relief Valve	Steam	Sulphur trioxide injection plant Electrode boiler	No limit set	-	-	-
PFA plant Vents	Dust	PFA silos	No limit set	-	-	-
LUB 1-4 Lubrication system/pressure vapour vents	Air with minor traces of Hydrogen/moisture/ oil vapour	On associated lubricating system in turbine house	No limit set	-	-	-
Tank vents	Mixed vapour	On tanks	No limit set	-	-	-
Degasser Tower vents.	Air	Degasser Towers in Water Treatment buildings	No limit set	-	-	-

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
GV 1-4 Generator vents	Mixed vapour	Turbine hall	No limit set	-	-	-
FWP 1-2 Diesel driven fire water pumps	Combustion gases	Fire water pump house	No limit set	-	-	-

Note 1: No emissions shall be made from LCP307 until PO1 in Table S1.4A has been completed and written approval obtained from the Environment Agency

Note 2: This emission limit applies for base-load operation

Note 3: This emission limit applies for mid-merit operation and the LCP shall not operate for more than 4000 hours per annum

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 7 emission to River Aire	Total suspended solids	Coal plant drainage settlement pond outlet including treated domestic sewage from coal plant	40 mg/ml	Monthly average of weekly spot sample	Weekly – analysed weekly and reported monthly as monthly average	BS EN 872
W1 on site plan in schedule 7 emission to River Aire	pH	Coal plant drainage settlement pond outlet including treated domestic sewage from coal plant	6-9	Instantaneous	Continuous Reported monthly as min max and average pH	BS EN ISO 10523

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 7 emission to River Aire	Flow	Coal plant drainage settlement pond outlet including treated domestic sewage from coal plant	No limit set	-	-	-
W1 on site plan in schedule 7 emission to River Aire	Oil	Coal plant drainage settlement pond outlet including treated domestic sewage from coal plant	None visible	Spot observation in daylight hours	daily	Observation recorded
W2 on site plan in schedule 7 emission to River Aire	Total suspended solids	Ash Ponds - Final settlement pond outlet	No limit set	Monthly average of weekly spot sample	Weekly – analysed weekly and reported monthly as monthly average	BS EN 872
W2 on site plan in schedule 7 emission to River Aire	pH	Ash Ponds - Final settlement pond outlet	6-9	Instantaneous	Continuous Reported monthly as min max and average pH	BS EN ISO 10523
W2 on site plan in schedule 7 emission to River Aire	Temperature	Ash Ponds - Final settlement pond outlet	30 °C	Instantaneous	Continuous Reported monthly as min max and average temperature	Traceable to national standards

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
W2 on site plan in schedule 7 emission to River Aire	Flow	Ash Ponds - Final settlement pond outlet	25 000 m ³ /day	Day	Continuous Reported monthly as min max and average daily flow	Traceable to national standards
W2 on site plan in schedule 7 emission to River Aire	Mercury and its compounds, expressed as mercury (Total Hg)	Ash Ponds - Final settlement pond outlet	0.005 mg/l	Monthly spot sample	Monthly	BS EN 13506:2002, BS 6068-2.74:2002
W2 on site plan in schedule 7 emission to River Aire	Cadmium and its compounds, expressed as cadmium (Total Cd)	Ash Ponds - Final settlement pond outlet	0.01 mg/l	Monthly spot sample	Monthly	BS EN ISO 15586:2003, BS 6068-2.84:2003
W2 on site plan in schedule 7 emission to River Aire	Total copper	Ash Ponds - Final settlement pond outlet	0.2 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	BS EN ISO 11885:1998, BS 6068-2.60:1998
W2 on site plan in schedule 7 emission to River Aire	Copper (on filtered sample)	Ash Ponds - Final settlement pond outlet	0.1 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	BS EN ISO 11885:1998, BS 6068-2.60:1998
W4 on site plan in schedule 7 emission to River Aire	pH	Roof drainage and boiler blow down overflow outfall	6-9	Instantaneous	Continuous Reported monthly as min max and average pH	BS EN ISO 10523

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
W4 on site plan in schedule 7 emission to Fryston Beck	Oil	Roof drainage and boiler blow down overflow outfall	None visible	Spot observation in daylight hours	daily	Visual observation and record
W5 on site plan in schedule 7 emission to Fryston Beck	Flow	Abstracted water screen wash outfall	No limit set	-	-	-
W6 on site plan in schedule 7 emission soakaway	Oil	Rail off-loading oil separation outlet – (soakaway)	No limit set	-	-	-
W7 on site plan in schedule 7 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
W7 on site plan in schedule 7 emission to River Aire	pH	Purge pit outfall	6-9	Instantaneous	Continuous Reported monthly as min max and average pH	BS EN ISO 10523
W7 on site plan in schedule 7 emission to River Aire	Temperature	Purge pit outfall	30 °C	Instantaneous	Continuous Reported monthly as min max and average temperature	Traceable to national standards
W7 on site plan in schedule 7 emission to River Aire	Flow	Purge pit outfall	120 000 m ³ /day	Day	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
W7 on site plan in schedule 7 emission to River Aire	Mercury and its compounds, expressed as mercury (Total Hg)	Purge pit outfall	0.005 mg/l	Monthly spot sample	Monthly	BS EN 13506:2002, BS 6068-2.74:2002
W7 on site plan in schedule 7 emission to River Aire	Cadmium and its compounds, expressed as cadmium (Total Cd)	Purge pit outfall	0.01 mg/l	Monthly spot sample	Monthly	BS EN ISO 15586:2003, BS 6068-2.84:2003
W7 on site plan in schedule 7 emission to River Aire	Total copper	Purge pit outfall	0.2 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	BS EN ISO 11885:1998, BS 6068-2.60:1998
W7 on site plan in schedule 7 emission to River Aire	Copper (on filtered sample)	Purge pit outfall	0.1 mg/l	Monthly average of weekly spot samples	Weekly – analysed weekly and reported monthly as monthly average	BS EN ISO 11885:1998, BS 6068-2.60:1998
W8 on site plan in schedule 7 emission into cooling water circuit for final discharge via W7	Flow	outlet from FGD waste water treatment	3000 m ³ /day	Day	Continuous Reported monthly as min max and average daily flow	BS 3680
W8 on site plan in schedule 7 emission into cooling water circuit for final discharge via W7	Total suspended solids	outlet from FGD waste water treatment	40 mg/l	Monthly average of weekly spot sample	Weekly – analysed weekly and reported monthly as monthly average	BS EN 872

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
W8 on site plan in schedule 7 emission into cooling water circuit for final discharge via W7	pH	outlet from FGD waste water treatment	6-9	Instantaneous	Reported monthly as min max and average pH	BS EN ISO 10523

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	Sampled and analysed weekly and reported as monthly average
	Copper content (total)	Weekly	BS 6068	Sampled and analysed weekly and reported as monthly average
	Copper content (filtered)	Weekly	BS 6068	Sampled and analysed weekly and reported as monthly average
W8 WWTP - Discharge from FGD Waste water treatment plant	Mercury and its compounds, expressed as mercury (Total Hg)	Monthly	BS EN 13506	
	Cadmium and its compounds, expressed as cadmium (Total Cd)	Monthly	BS 6068-2.89	
	Total copper	Monthly	BS 6068	
	Copper (on filtered sample)	Monthly	BS 6068	
	Arsenic	Monthly	BS 6068	
	Boron	Monthly	BS 6068	
	Chloride	Monthly	As in current edition of Agency monitoring guidance M18	
	Silver	Monthly	BS 6068	
Nickel	Monthly	BS 6068 Sampled and analysed monthly		

Table S3.3 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
	Lead	Monthly	BS 6068	
	Antimony	Monthly	BS 6068	
	Tin	Monthly	BS 6068	
	Vanadium	Monthly	BS 6068	
	Chromium	Monthly	BS 6068	
	Zinc	Monthly	BS 6068	
	Selenium	Monthly	BS 6068	
	Iron	Monthly	BS 6068	
	Aluminium	Monthly	BS 6068	
	Manganese	Monthly	BS 6068	
	Molybdenum	Monthly	BS 6068	
	Fluoride	Monthly	As in current edition of Agency monitoring guidance M18	

Note 1: or as method in current edition of Agency "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	A2	Every 3 months	1 January, 1 April, 1 July, 1 October
	A4, A5	Every 2 years	1 January
Dust	A2	Every 3 months	1 January, 1 April, 1 July, 1 October
	A4, A5	Every 2 years	1 January
Sulphur dioxide	A2	Every 3 months	1 January, 1 April, 1 July, 1 October
	A4, A5	Every 2 years	1 January
Carbon monoxide	A4, A5	Every 2 years	1 January
Mercury	A2	Annually	1 January
Emissions to water Parameters as required by condition 3.5.1	W1, W2, W4, W7, W8	Every 3 months	1 January, 1 April, 1 July, 1 October
Process monitoring Parameters as required by condition 3.5.1	Process water intake from River Aire	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

Parameter	Units
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

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

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 - SO ₂ , NO _x and dust concentration emissions. CEMs reporting for Utility Boilers Only	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 – SO ₂ , NO _x , dust and CO 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.

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

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

“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.

“Emergency conditions” means black start or when this is a potential national loss of supply.

“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.

“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.

“off load” means that no electricity is being generated

“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.

Drafting note: only use above definition for chapter 5 installations

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.

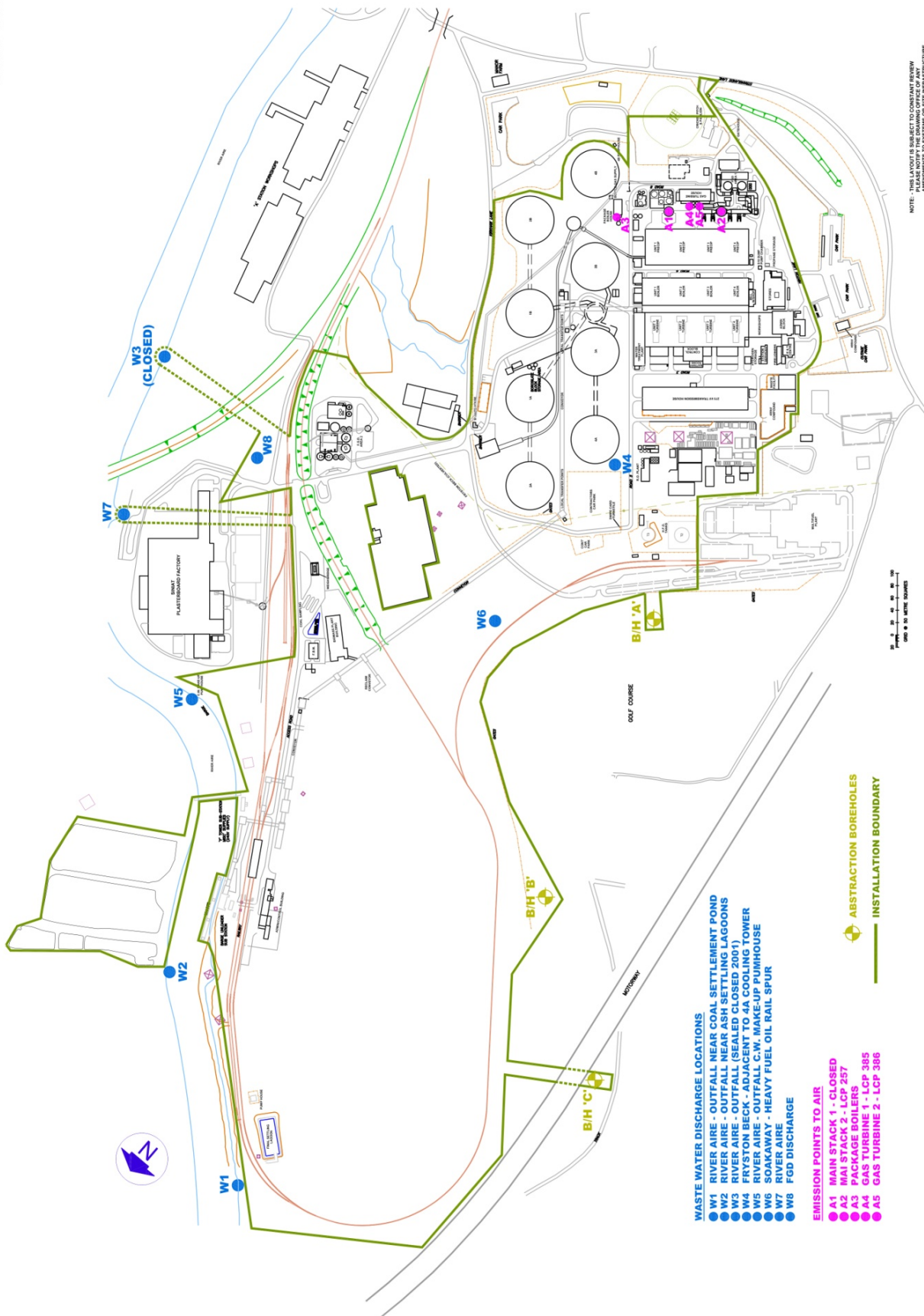
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- 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

SITE PLANS



FERRYBRIDGE 'C' - SITE EMISSION POINT LOCATIONS

FC36554 Rev.1

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END OF PERMIT

Permit number
EPR/VP3337SR