Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Centrica SHB Limited

South Humber Bank Power Station
South Marsh Road
Stallingborough
North East Lincolnshire
DN41 8BZ

Variation application number

EPR/MP3235LY/V005

Permit number

EPR/MP3235LY

South Humber Bank Power Station
Permit number EPR/MP3235LY

Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made and contains all conditions relevant to this permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

As well as implementing Chapter III of IED, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises all conditions to reflect the conditions contained in our current generic permit template.

The Operator has chosen to operate this LCP under the Transitional National Plan (TNP) compliance route.

The net thermal input of the LCPs is as follows:
LCP 49 – one 491MWth CCGT,
LCP50 – two CCGT's combined 982MWTh,
LCP51 – two CCGT's combined 982MWTh

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

- LCP 114 is changed to LCP 49;and
- LCP 115 is changed to LCP 50;and
- LCP 116 is changed to LCP 51

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

There are two operators and two processes at the installation. The primary purpose (operated by Centrica SHB Limited) is to operate a Combined Cycle Gas Turbine (CCGT) Power Station. The secondary purpose (operated by National Grid Gas plc) is the addition of an odourising agent to the natural gas fed to the CCGTs.

The entire installation covers an area of around 200,000 m^2 in an area north west of Grimsby and east of Immingham in an area of flat farmland scheduled for industrial development. It is located immediately adjacent to the Humber Estuary (an SSSI and listed European Site to the North east) and 1.5 kilometres from the nearest house (to the east). There are emissions to air and to water from the installation.

The activities covered by this permit are owned by Centrica plc and operated by Centrica SHB Limited. It has a nominal output of 1260 MW of electricity from 2 combined cycle gas turbine units and can operate to a base load or demand following regime.

The first module consists of 3 gas turbines, 3 associated electricity generators, 3 heat recovery steam generators, steam turbine and associated electricity generator. The second module consists of 2 gas turbines, 2 associated electricity generators, 2 heat recovery steam generators, steam turbine and associated electricity generator.

GT13 is a single unit which vents into a dedicated stack at release point A1. GT11 and GT12 vent into a common stack at release point A2. Similarly, GT21 and GT22 vent into a common stack at release point A3.

Boiler feed water is supplied from towns water via 2 demineralisation plants (1 on each module). Water from the deepwater channel in the estuary is used for direct ("once through") cooling and returned to the deepwater channel. Apart from the inlet and outlet culverts/ponds the 2 modules have separate cooling water systems.

A gas oil fired auxiliary boiler provides steam during start-up of the first module following a complete shutdown. The auxiliary boiler and gas turbine use low NO_X technology to minimise releases at source.

Administrative support, raw material storage, warehousing and limited engineering support are all located on the installation to support operations.

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 EPR/MP3235LY	Duly made 22/03/06	
Additional information requested (site visit)	06/07/06	
Additional Information Received		04/08/06
Permit determined	12/12/06	
Application EPR/MP3235LY/V002	29/10/10	
Variation issued	14/12/10	
Variation determined EPR/MP3235LY/V003	11/03/13	Environment Agency initiated Variation, to incorporate Eel Regulations improvement condition
Variation determined EPR/MP3235LY/V004 (Billing reference) MP3235WK	Issued 29/09/14	Environment Agency Initiated Variation issued, to add an improvement condition requiring a cost benefit appraisal to ensure compliance with the Eels Regulations. Effective 1/10/14.
Regulation 60 Notice sent to the Operator	17/12/14	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.
Regulation 60 Notice response	31/03/15	Response received from the Operator.
Additional information received	24/11/15	Response to request for further information (RFI) dated 20/10/15.
Variation determined EPR/MP3235LY/V005 (PAS Billing ref:KP3634AN)	23/12/2015	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

Other Part A installation permits relating to this installation		
Operator	**Permit number**	**Date of issue**
National Grid Gas PLC	QP3535LG	12/12/06

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/MP3235LY

Issued to

Centrica SHB Limited ("the operator")

whose registered office is

Centrica SHB Limited
Millstream
Maidenhead Road
Windsor
Berkshire
SL4 5GD

company registration number 02571241

to operate a regulated facility at

South Humber Bank Power Station
South Marsh Road
Stallingborough
North East Lincolnshire
DN41 8EZ

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Anne Nightingale	**23/12/2015**

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/MP3235LY

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/MP3235LY/V005 authorising,

Centrica HB Limited ("the operator"),

whose registered office is

Centrica SHB Limited
Millstream
Maidenhead Road
Windsor
Berkshire
SL4 5GD

company registration number 02571241

to operate an installation at

South Humber Bank Power Station
South Marsh Road
Stallingborough
North East Lincolnshire
DN41 8EZ

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

Name	Date
Anne Nightingale	**23/12/2015**

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.

1.5 Multiple operator installations

1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit, which is within the area edged in green on the site plan that represents the extent of the installation covered by this permit and that/those of the other operator of the installation.

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: LCP49, LCP 50 and LCP 51. 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: A1 Auxiliary boiler. The activities shall not operate for more than 500 hours per year.

2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP49, LCP 50 and LCP51. 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

2.3.7 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.

2.3.8 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Total annual emissions from the emission points set out in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

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.

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; and

(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.

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 For the following activities referenced in schedule 1, table S1.1: LCP49, LCP50 and LCP51. Unless otherwise agreed in writing with the Environment Agency, within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form IED RTA1, listed in table S4.4, the information specified on the form relating to the site's mass emissions.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i) or 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(c) any change in the operator's name or address; and

(d) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made immediately, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity 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.	LCP 49(GT13):CCGT for production of electricity and steam. LCP 50 (GT11&GT12):CCGT's for production of electricity and steam. LCP51 (GT21&GT22):CCGT's for production of electricity and steam. Auxiliary gas oil boiler. Limited to < 500 hours/ yr operation. (42 MWth input)	From receipt of gas through to discharge of exhaust gases and generation of electricity From receipt of gas oil through to discharge of exhaust gases and export of steam to the steam systems.
	Directly Associated Activity		
A2	Directly associated activity	Water treatment. Demineralisation of water.	Receipt of water and other raw materials through to the export to boiler feed system and drains.
A3	Directly associated activity	Cooling water system	From inlet ports to discharge ports.
A4	Directly associated activity	Raw materials handling and storage. Receipt storage and handling of water treatment chemicals, fuel and lubricating oils, turbine cleaning chemicals and all other raw materials	From receipt of raw materials to their point of use
A5	Directly associated activity	Waste handling and storage	From generation to the removal from the installation.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to section 2.1 and 2.2 excluding Appendix A (Application site report, February 2006) in the application	22/03/06
Receipt of additional information to the application	Revised Application Site Report July 2006	04/08/06
Information submitted as part of a variation	Information provided in non technical summary	29/10/10
Response to regulation 60(1) Notice – request for information dated 17/12/14	Compliance route and operating techniques identified in response to questions 2 (chosen compliance route), 4 (LCP configuration), 5 (Net rated thermal Input), 6 (start up and shut down), 9ii (ELV Limits), 11 (monitoring requirements).	Received 31/03/15
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 20/10/2015	Further details provided on Net rated thermal input and Start up and Shut down thresholds for the gas turbines.	24/11/15

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP1	A written procedure shall be submitted to the agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure. The procedure shall be implemented by the operator from the date of approval in writing by the Agency	Completed
IP2	A procedure shall be submitted to the Agency for approval. The procedure shall outline how incidents are reviewed with specific reference to impact on the application site report and site protection and monitoring plan. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure. The procedure shall be implemented by the operator from the date of approval in writing by the Agency	Completed
IP3	A written report shall be submitted to the Agency for approval. The report shall contain the results of the review of inspection procedures to ensure compliance with indicative BAT guidance in Section 2.2.9 of Technical Guidance Note “IPPC Sector Guidance Note Combustion Activities.” Where appropriate the report will include dates for the revision of relevant procedures. 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.	Completed

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP4	The Operator shall undertake a review of the BAT listed within the Combustion Sector TGN IPPC S1.01 Section 2 for Oxides of Nitrogen which will enable them to achieve the ELV given within the TGN for the release to air from the gas turbines. The review shall include, but not be limited to, all of the relevant techniques listed within the TGN, the reduction in the level of pollutants (for each option) and the costs of achieving the reduction (for each option). The report shall include a timetable to implement any proposed changes as appropriate. The Operator shall implement the proposals as agreed in writing with the Environment Agency.	Completed
IP5	A written report shall be submitted to the Agency for approval. The report shall contain a Closure and decommissioning plan that is consistent with indicative BAT guidance in Section 2.11 of Technical Guidance Note "IPPC Sector Guidance Note Combustion Activities." The report will include evidence of relevant procedures to ensure that the plan is subject to review following incidents and at an appropriate frequency. 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.	Completed
IP6	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. 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:- - 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 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. 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. The proposals shall be implemented in accordance with the Environment Agency's written approval.	Completed

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP7	The Operator has undertaken a review of the existing screening arrangements with reference to the Eels (England and Wales) Regulations 2009 (SI 2009/3344) and the Environment Agency ''Safe Passage for Eel'' Regulatory Position Statement version 1 dated July 2012 (and as amended February 2013) in response to Improvement Programme reference IP6 The Environment Agency has determined that the site does not comply with the requirements for safe passage of eel and the Operator is now required to complete a cost benefits appraisal of best available technique with reference to the Environment Agency ''Safe Passage for Eel: Guidance on Exemptions'' as a screening tool. a) If the Cost Benefit Assessment shows that the Benefits are greater than the costs by a factor of 1.5 or more, then the Operator shall submit to the Environment Agency for review a report setting out the costs and the technical and economic feasibility to introduce the improvements to achieve best available technique. b) If the Cost Benefit Assessment shows that the Benefits are not greater than the costs by a factor of 1.5 or more, then the Operator shall, with reference to the Environment Agency ''Safe Passage for Eel: Guidance on exemptions, assess which alternative measure, or combination of alternative measures, could be implemented under a case of a conditioned Exemption. The Operator shall submit a report to the Environment Agency setting out the costs and the technical and economic feasibility of implementing their proposed alternative measure or measures. In all cases, the submission shall contain relevant timescales in accordance with the Safe Passage for Eel Regulatory Position Statement version 1 dated July 2012 (as amended 2013). The proposals shall be implemented following written approval of the Environment Agency. Whilst undertaking this Improvement Condition, the Operator shall be operating under exemption from the requirements to place eel screen diversion structures pursuant to Regulation 17(5)(a) of the Eels (England and Wales) Regulations 2009. The exemption will remain in place until the Environment Agency has provided written approval that the Improvement Condition has been deemed complete.	Received 30 June 15, under assessment by the Environment Agency
IP8	'For LCPD LCP 114, LCP 115 and LCP 116 (now LCP 49, LCP50 and LCP51 under IED). Annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LPCD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry.'	28/01/16

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
1	Dosing of cooling water system with biocide. At least 4 weeks prior to commencing to dose, the operator shall submit a request to commence for approval by the Agency. This request shall include confirmation the continuous monitoring of the pH of the discharge has been initiated and shall outline the techniques to be used to ensure compliance with the conditions outlined in table S3.2

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 (%) and /or when two of the criteria listed below for the LCP have been met.**	**"Minimum shut-down load"** **Load in MW and as percent of rated power output (%)**
A1 (GT13)	104 MW; 60%	104MW; 60%
A2(GT11)	104 MW; 60%	104MW; 60%
A2(GT12)	104 MW; 56%	104 MW;56%
A3(GT21)	Circuit breaker closed and stress <60%	75 MW; 40%
	GT release is given with -32 and -45 curve fuel ratio balanced	
	Relative Power >45%	
A3(GT22)	Circuit breaker closed and stress <60%	75 MW; 40%
	GT release is given with -32 and -45 curve fuel ratio balanced	
	Relative Power >45%	

Schedule 2 – Waste types, raw materials and fuels

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

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)-these limits do not apply during start up or shut down.**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	70 mg/m^3	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	75 mg/m^3	95% of validated daily means within a calendar year	Continuous	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	140 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Carbon Monoxide	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	100 mg/m^3	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Carbon Monoxide	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	100 mg/m^3	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22]	Carbon Monoxide	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	200 mg/m^3	95% of validated hourly averages 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**
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Sulphur dioxide	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	At least every 6 months	Concentration by calculation as agreed in writing with the Environment Agency
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Oxygen	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Continuous As appropriate to reference	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Water Vapour	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Continuous As appropriate to reference	BS EN 14181
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Stack gas temperature	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Continuous As appropriate to reference	Traceable to national standards
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Stack gas pressure	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Continuous As appropriate to reference	Traceable to national standards
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	Stack gas volume flow	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Continuous	BS EN16911 &TGN M2
A1[GT13] A2[GT11/GT12] A3[GT21/GT22	As required by the Method Implementation Document for BS EN 15259	LCP No 49 LCP No 50 LCP No 51 Gas turbines fired on natural gas	-	-	Pre-operation and when there is a significant operational change	BS EN 15259

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**
A4	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Auxiliary Boiler 42 MWth Input	300mg/m³[1][2]	-	-	-
A4	Sulphur Dioxide	Auxiliary Boiler 42 MWth Input	-[1][2]	-	-	-
A4	Dust	Auxiliary Boiler 42 MWth Input	-[1][2]	-	-	-
A4	Carbon Monoxide	Auxiliary Boiler 42 MWth Input	150mg/m³[1][2]	-	-	-
A5	-	Phase 1 emergency gas oil generator	-	-	-	-
A6	-	Phase 2 emergency gas oil generator				
A7	-	Phase 1 gas oil back up firewater pump	-	-	-	-
A8	-	Phase 2 gas oil back up firewater pump	-	-	-	-
A9	-	GT13 fuel gas vent	-	-	-	-
A10	-	GT12 fuel gas vent	-	-	-	-
A11	-	GT11 fuel gas vent	-	-	-	-
A12	-	GT22 fuel gas vent	-	-	-	-
A13	-	GT21 fuel gas vent	-	-	-	-

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**
A14	-	All steam vents	-	-	-	-
A15	-	Raw material storage tank vents	-	-	-	-
A16	-	All building ventilation vents	-	-	-	-

[1] Auxiliary boiler operation is limited to 500 hours per calendar year.

[2] Emissions monitoring required if auxiliary boiler operates continuously for more than 24 hours and subject to a maximum of 1 test per 6 month period.

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 (Discharge to River Humber deep water channel)	Flow	Cooling water with trivial contribution from water treatment plant and surface water	2,376,000m³/day 99,000m³ hour	Day Hour	Continuous Continuous	-
W1 (Discharge to River Humber deep water channel)	pH		5-9[1]	Continuous	See footnote {1}	-
W1 (Discharge to River Humber deep water channel)	Temperature		<8ºC <15ºC[2]	Continuous Continuous	Continuous Continuous	- -
W1 (Discharge to River Humber deep water channel)	Total oxidant (As chlorine)		0.1mg/L	To be agreed before dosing commences	-	-

{1} Continuous monitoring of pH is only required where biocide dosing has commenced.

{2} This is limited to the following activities:

(a) Maintenance work on the cooling water pumps.
(b) Repairs to leaks on the cooling water system.
(c) Clearing blockages on the main screens.
(d) Clearing of debris filters within the process.
(e) Investigations to identify condenser tube leaks.
(f) Running on steam by-pass following trips.
(g) Recommissioning.
(h) Optimisation of plant thermal efficiency performance.
(i) Other conditions agreed in writing with the Environment Agency.

Table S3.3 Annual limits (excluding start up and shut down except where otherwise stated).				
Substance	**Medium**	**Limit (including unit)**		**Emission Points**
Oxides of nitrogen	Air	Assessment year	LCP TNP Limit	LCP49 (A1), LCP50 (A2), LCP 51 (A3)
		01/01/16 and subsequent years until 31/12/19 01/01/20-30/06/20	Emission allowance figure shown in the TNP Register as at 30 April the following year	

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Oxides of nitrogen	A1, A2, A3, A4	Every 3 months	1 January, 1 April, 1 July, 1 October
Oxides of nitrogen	A4	Every 6 months	1January, 1July
Carbon Monoxide	A1, A2, A3, A4	Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	A1, A2, A3, A4	Every 6 months	1 January, 1 July
Dust	A4	Every 6 months	1 January, 1 July
Surface water monitoring Parameters as required by condition 3.5.1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October

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

Table S4.3 Chapter III Performance parameters for reporting to DEFRA		
Parameter	**Frequency of assessment**	**Units**
Thermal Input Capacity for each LCP	Annually	MW
Annual Fuel Usage for each LCP	Annually	TJ
Total Emissions to Air of NO_x for each LCP	Annually	t
Total Emissions to Air of SO_2 for each LCP	Annually	t
Total Emissions to Air of Dust for each LCP	Annually	t
Operating hours for each LCP	Annually	t

Table S4.4 Reporting forms				
Media/ parameter	**Reporting format**	**Starting Point**	**Agency recipient**	**Date of form**
LCP	Form IED HR1 – operating hours	01/01/16	National	31/12/15
Air	Form IED AR1 – SO_2, NO_x and dust mass emission and energy	01/01/16	National	31/12/15
Air	Form IED RTA1 –TNP quarterly emissions summary log	01/01/16	National	31/12/15
Air	Form IED CON 2 – continuous monitoring	01/01/16	Area Office	31/12/15
CEMS	Form IED CEM – Invalidation Log	01/01/16	Area Office	31/12/15
Air	Form A – 8 PPC discontinuous or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	19/10/06
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	19/10/06

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

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

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

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“background concentration” means such concentration of that substance as is present in:

for emissions to surface water, the surface water quality up-gradient of the site; or

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

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

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

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

“CEN” means Commité Européen de Normalisation.

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

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

“DLN” means dry, low NO_x burners.

“emissions to land” includes emissions to groundwater.

“Energy efficiency” the ISO base load net plant efficiency means the performance value established by acceptance testing following commissioning or performance testing following improvements made to the plant that could affect the efficiency.

“Energy efficiency” the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

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

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

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

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

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

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"MCR" means maximum continuous rating.

"MSDL" means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

"MSUL" means minimum start-up load as defined in Implementing Decision 2012/249/EU.

"Natural gas" means naturally occurring methane with no more than 20% by volume of inert or other constituents.

"ncv" means net calorific value.

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

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

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

"SI" means site inspector.

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

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

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

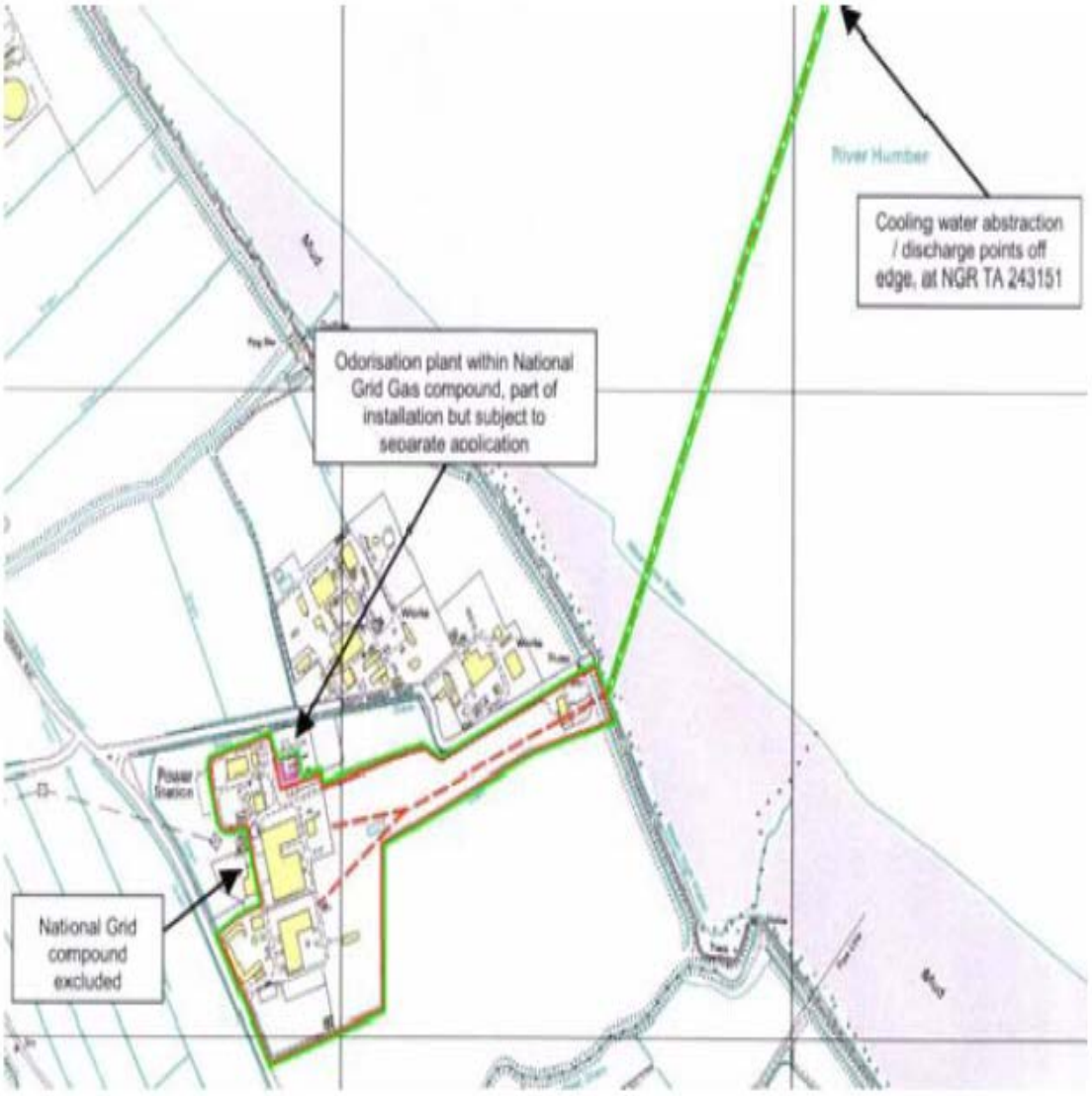
in relation to emissions from gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or

in relation to emissions from combustion processes comprising a gas turbine with a waste heat boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% dry for liquid and gaseous fuels; and/or

- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

"year" means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT