



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Third Energy UK Gas Limited
Knapton Generation Station
East Knapton
Malton
North Yorkshire
YO17 8JF

Variation application number

EPR/HP3038LA/V004

Permit number

EPR/HP3038LA

Knapton Generation Station

Permit number EPR/HP3038LA

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 IED chapter III annex V compliance route.

The net thermal input of the LCP is as follows: one 110 mWth OCGT and one 1 MWth gas fired boiler used to preheat the sour gas to aid moisture removal from the gas prior to combustion in the gas turbine.

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

- LCP 418 is changed to LCP 376
- The rest of the installation is unchanged and continues to be operated as follows:

Third energy UK Gas Limited, 'the Operator', operates an Open Cycle Gas Turbine (OCGT) power station, and a Gas Conditioning Plant within this Installation, located in East Knapton to the North East of Malton, North Yorkshire. The Installation is capable of supplying electricity for up to 40,000 homes.

The Open Cycle Gas Turbine Engine, which was commissioned in 1994, has a thermal input of 110MW, and drives a generator producing an electrical output of 41.5MW. The engine operates exclusively on sour gas (natural gas containing hydrogen sulphide, H₂S together with other sulphur compounds) which is recovered from a local gas field and delivered by pipeline to the installation.

Conditioning of the sour gas takes place within the Gas Conditioning Plant, where free-water and hydrocarbon liquids are removed from the gas stream. The gas is then heated above its water and hydrocarbon dew point using the Gas fired boiler. This process ensures that the gas meets a suitable quality for use as a fuel within the gas turbine.

A number of ancillary systems are also used to enable viable operation of the installation these include; a water treatment plant; a ground flare; a gas fired pre-heater; and an emergency gas oil generator for a firewater pump.

The principal environmental issues concerned with this Installation include both emissions released to air and emissions produced during the gas conditioning process. Emissions to air are primarily derived from the gas turbine exhaust; and emissions from the gas treatment plant, from the removal of gas condensate, water, and other additives concerned with hydrate prevention and pipeline protection.

The main air emissions of concern associated to the gas turbine exhaust are oxides of nitrogen (NO_x) and sulphur dioxide (SO₂).

Emissions to air are also released from the ground flare; the hydrochloric acid (HCL) storage tank - within the water treatment plant; and the gas-fired pre-heater.

Effluent is produced from two main areas within the Installation, these being the gas conditioning plant, and the water treatment plant.

Increased traces of hydrocarbon fractions and moisture occur naturally within the abstracted gas. It is necessary to remove these prior to use within the gas turbine engine. This condensate – consisting of hydrocarbon liquids and water (salt saturated brine) – together with injected additives, is removed within the gas conditioning plant. Additives, which are injected into the gas stream at the well heads, include glycol and corrosion inhibitor are injected in order to prevent the occurrence of hydrate formation and corrosion.

There are no releases to sewer from the site. Uncontaminated surface water is discharged to Difford Beck, surface water passes through an oil interceptor, prior to being discharged into the beck.

Land use surrounding the Installation and dominating the whole of the Vale of Pickering is primarily agricultural, both arable and pasture land. Small villages and farm buildings are scattered within the surrounding farmland, together with a number of small woodland areas. The closest residential property is located 650m to the north east of the Installation. East Knapton and West Knapton are small villages, and lie between 1.0km and 1.5km south west from the Installation.

There are two designated European (Natura 2000) sites within 10km from the Installation. The closest of these sites is the River Derwent, designated as a Special Area of Conservation (SAC), and lies a distance of 5.9km, and the second closest being Ellers Wood and Sand Dale (SAC), at a total distance of 8.2km from the Installation. There are no Site of Special Scientific Interest (SSSI) designated sites within a distance of 2km from the Installation; however, there are twenty seven SSSI sites within a distance of 15km.

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 received HP3038LA	Duly made 31/03/06	
Additional information received	29/03/07, 03/08/07	
Permit determined EPR/HP3038LA	11/09/07	Original permit issued to Viking UK Gas Limited
Variation EPR/HP3038LA/V002	16/03/10	Installation of a Reverse Osmosis filtration unit
Notified of change of company name	16/06/14	Name changed to Third Energy UK Gas Limited.
Variation issued EPR/HP3038LA/V003	09/07/14	Varied permit issued to Third Energy UK Gas Limited.
Regulation 60(1) Notice – request for information dated 31/10/14	30/3/15	Response to RFI for IED variation
Additional information received	16/6/15	Response to request for further information (RFI) dated 15/5/15
Additional information received	16/6/15	Response to request for further information (RFI) dated 28/5/15

Status log of the permit		
Description	Date	Comments
Variation determined EPR/HP3038LA/V004 (PAS Billing ref: NP3534AE)	23/12/2015	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/HP3038LA

Issued to

Third Energy UK Gas Limited ("the operator")

whose registered office is

Knapton Generation Station

East Knapton

Malton

North Yorkshire

YO17 8JF

company registration number 1421481

to operate a regulated facility at

Knapton Generation Station

East Knapton

Malton

North Yorkshire

YO17 8JF

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Tom Swift	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/HP3038LA

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/HP3038LA/V004 authorising,

Third Energy UK Gas Limited ("the operator"),

whose registered office is

Knapton Generation Station

East Knapton

Malton

North Yorkshire

YO17 8JF

company registration number 1421481

to operate an at

Knapton Generation Station

Knapton Generation Station

East Knapton

Malton

North Yorkshire

YO17 8JF

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

Name	Date
Tom Swift	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 For the following activities referenced in schedule 1, table S1.1: A1 to A8. 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 red 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: LCP376. 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 376. The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5
- 2.3.6 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.
- 2.3.7 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2, S3.3 and S3.4 ;
 - (b) process monitoring specified in table S3.4.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continuous), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

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

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.
- 3.6.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.6.7, the operator shall:
- (a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the Environment Agency for approval, proposals for measures to improve the reliability of the continuous measurement systems, including a timetable for the implementation of those measures; and
 - (b) implement the approved proposals.
- 3.6.3 Continuous measurement systems on emission points from the LCP shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.6.4 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.6.5 below, the operator shall carry out the methods, including the reference measurement methods, to

use and calibrate continuous measurement systems in accordance with the appropriate CEN standards.

- 3.6.5 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.
- 3.6.6 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.
- 3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3, table S3.1; the Continuous Emission Monitors shall be used such that:
- (a) for the continuous measurement systems fitted to the LCP release points defined in Table S3.1 the validated hourly, monthly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval;
 - (b) the 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%;
 - (c) the 95% confidence interval for dust releases of a single measured result shall be taken to be 30%;
 - (d) the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
 - (e) an invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing; and
 - (f) any day, in which more than three hourly average values are invalid shall be invalidated.

4 Information

4.1 Records

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

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1: A1 to A8. 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.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (c) any change in the operator's name or address; and
 - (d) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.
- 4.3.8 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "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.	LCP376 (OCGT mode): Operation of an open cycle gas turbine power plant (OCGT) burning sour gas to produce electricity. A 1MW gas fired boiler to pre heat the fuel gas prior to use in the gas turbine	From receipt of conditioned fuel gas from the gas conditioning plant, pre heating gas prior to combustion and to the discharge of exhaust gases and the generation of electricity for export
A2	Section 1.2 A(1)(a) : Refining gas where this is likely to involve the use of 1,000 tonnes or more of gas in any period of 12 months	Conditioning of sour gas within the Gas Conditioning Plant, where the hydrocarbon condensate, free-water (salt saturated brine), corrosion inhibitor and glycol is removed from the gas supply.	From the receipt of sour gas to the despatch of conditioned fuel gas and waste.
Directly Associated Activity			
A3	Water treatment plant	An ion exchange plant to produce demineralised water for injection into the GT combustion chamber.	From the receipt of water treatment chemicals and potable water within the water treatment plant, to the production of high purity water and waste.
A4	Raw material storage	Storage of raw materials and chemicals.	From receipt of raw materials to the dispatch for use.
A5	Emergency flare	Ground flare consisting of a dual vent / incinerator system with continuously operating pilot flames.	From the receipt of vented sour gas, purge gas and emergency relief gas to the immediate ignition / effective combustion to allow safe disposal of such gas.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A6	Service systems to serve the GT	Miscellaneous utility systems providing services to the gas turbine - including the emergency firewater pump and reciprocating gas compressor (for gas supply pressurisation).	From receipt of raw materials to the dispatch for use.
A7	Discharge to controlled waters	Surface water drainage to Difford Beck.	Handling and storage of site surface water run-off via the oil interceptor pit, and subsequent discharge to Difford Beck.
A8	Discharge to controlled waters	Water treatment by reverse osmosis filtration unit	From the receipt of potable water within the reverse osmosis unit and the subsequent discharge to Difford Beck

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to section 2.1 and 2.2 in the Application.	31/03/2006
Variation Application	Variation All	Application 08/12/2009 and further information received 04/01/2010 & 08/02/2010
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance route and operating techniques identified in response to the questions listed below:- 2 -The compliance route selected for the LCP. 4 - The configuration of the LCP. 5- The net rated Thermal input of the LCP and the method by which it was derived. 6- The definition of the conditions that will define the start–up and shutdown points. 9- The proposed Emission Limit Values. 10- Monitoring requirements	Received 30/03/15

Table S1.2 Operating techniques		
Description	Parts	Date Received
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 15/05/15	Compliance route and operating techniques identified in response to the questions listed below:- 5- The net rated Thermal input of the LCP and the method by which it was derived. 6- The definition of the conditions that will define the start-up and shutdown points. 9- The proposed Emission Limit Values. 10- Monitoring requirements	Received 16/06/15
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 28/05/15	Compliance route and operating techniques identified in response to the questions listed below:- 5- The net rated Thermal input of the LCP and the method by which it was derived. 6- The definition of the conditions that will define the start-up and shutdown points. 9- The proposed Emission Limit Values. 10- Monitoring requirements	Received 16/06/15

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	A written plan shall be submitted to the Agency for approval detailing measures required to ensure that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation as documented within section B2.10 of the application. The plan shall include a timetable for implementation of such measures in order to meet the requirement of condition 3.6.3, and the notification requirements of condition 2.5.2.	Complete
IC2	The Operator shall conduct a feasibility study for the periodic monitoring of Particulate emissions from emission point A1, in accordance with all relevant Agency Technical Guidance, including M2: "Monitoring of stack-emissions to air." A written summary report shall be submitted to Agency documenting the findings from the investigation. Where an appropriate method is identified, the Operator shall submit a timetable for the implementation of such a method.	Complete
IC3	The Operator shall submit a report containing a review of Best Available Techniques for the reduction of sulphur dioxide emissions, as detailed within sections 2.1.3 and 2.2.3 of TGN V2.03 "IPPC Sector Guidance Note for Combustion Activities", 27 July 2005. The review shall identify all available options, with a view to achieving a reduction of sulphur in fuel in accordance with Best Available Techniques, as detailed within section 2.2.1.3 of TGN S1.02 "Guidance for the Gasification, Liquefaction and Refining Sector". The report shall include a plan of action, together with a timetable for implementing the chosen technique(s). The plan shall be implemented by the operator from the date of approval in writing by the Environment Agency.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC4	<p>The Operator shall assess options available for the treatment of effluent from the Water Treatment Plant, having regard to :-</p> <ul style="list-style-type: none"> • TGN S1.02 "Guidance for the Gasification, Liquefaction and Refining Sector, section 2.2.2; • TGN V2.03 "IPPC Sector Guidance Note for Combustion Activities, section 2.2.6; • EPA 1990 – Process Guidance Note IPR 1/2 (Revised 1994) – Combustion Processes : Gas Turbines, sections 6, 10.4, and 11.3; • IPPC : Reference Document on Best Available Techniques in Common Waste Water and Waste Gas Treatment / Management Systems in the Chemical Sector (February 2003). <p>A written report summarising the findings, together with an assessment into possible alternative disposal routes, shall be submitted to the Agency. The report shall include a timetable for the implementation of any identified improvements.</p>	Complete
IC5	<p>The Operator shall undertake a study into methods for calculating NOx emissions from the ground flare, and methane emissions from the gas conditioning and combustion plant.</p> <p>A written summary report shall be submitted to Agency documenting the findings from the study. Where appropriate methods are identified, the Operator shall submit a timetable for the implementation of such methods.</p>	Complete
IC6	<p>A written plan shall be submitted to the Environment Agency detailing measures required in order to comply with the requirements of section 2.2.5 of TGN S1.02 "Guidance for the Gasification, Liquefaction and Refining Sector"; and 2.2.9 of TGN V2.03 "IPPC Sector Guidance Note for Combustion Activities".</p> <p>The plan shall identify dates for the implementation of measures to improve drainage within the chemical storage area, as documented within chapter 5 (supporting section B9) of the application.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p>	Complete
IC7	<p>The Operator shall undertake an odour assessment, having regard to :-</p> <ul style="list-style-type: none"> • Technical Guidance Note H4, Horizontal Guidance for Odour Part 2, Assessment and Control (version 1, October 2002); • TGN S1.02 "Guidance for the Gasification, Liquefaction and Refining Sector"; • TGN V2.03 "IPPC Sector Guidance Note for Combustion Activities"; <p>A written summary report shall be submitted to the Agency detailing the findings of the assessment. Where any improvements are identified, the Operator shall submit a timetable for their implementation.</p>	Complete
IC8	<p>The Operator shall submit a report to the Agency detailing current energy efficiency measures in comparison to those required for further energy-efficiency, as detailed within section 2.7.3 of TGN V2.03 "IPPC Sector Guidance Note for Combustion Activities", 27 July 2005.</p> <p>This report shall include but not be limited to:-</p> <ul style="list-style-type: none"> • A feasibility study for the installation of a steam turbine, producing electricity through means of heat recovery. <p>Where the Operator has identified a proposal within the report, which is regarded as BAT for the Installation, the Operator shall include a timescale for the implementation and commissioning of such a facility.</p>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC9	<p>The Operator shall carry out an investigation to examine alternative techniques for the prevention of hydrate formation and pipeline corrosion, and submit a written report to the Agency summarising their findings.</p> <p>Where any technique(s) is considered 'best available techniques' over that of the current use of Corrosion Inhibitor and Glycol, the Operator shall submit proposals for their implementation.</p>	Complete
IC10	<p>The Operator shall produce a written site closure plan, in accordance with section 2.11 of V2.03 "IPPC Sector Guidance Note for Combustion Activities", 27 July 2005. A copy of the plan shall be submitted to the Environment Agency.</p>	Complete
IC11	<p>The Operator shall collect a representative 24 hour composite sample of effluent from the Reverse Osmosis Unit prior to discharge to Difford Beck on a monthly basis for a period of 6 consecutive months. Sampling methodology is to be agreed in writing in advance with the Agency. These 24 hour composite samples are to be submitted for analysis for pollutants outlined in Section 9 of Variation Application dated 08/12/2009 and those parameters listed in Table 4.2 of permit HP3038LA. Analysis of all pollutants is to be by a method as outlined in Environment Agency Monitoring Guidance Note M18 "Monitoring of Discharges to Water and Sewer, Version 2" unless agreed in writing in advance with the Agency. On receipt of analytical results a report is to be submitted the Agency including, as a minimum, levels of all pollutants and an impact assessment using the Environment Agency H1 Software Tool. Monthly reports are to be submitted 2 weeks from receipt of analytical results.</p>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC12	<p>The operator shall provide a report in writing to the Environment Agency for acceptance which provides the net rated thermal input for LCP376. The net rated thermal input is the 'as built' value unless the plant has been modified significantly resulting in an improvement of the plant efficiency or output that increases the rated thermal input (which typically requires a performance test to demonstrate that guaranteed improvements have been realised).</p> <p>Evidence to support this figure, in order of preference, shall be in the form of:-</p> <ul style="list-style-type: none"> a) Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes), b) Performance test results after a significant modification (quoting the specified standards or test codes), c) Manufacturer's contractual guarantee value, d) Published reference data, e.g., Gas Turbine World Performance Specifications (published annually); e) Design data, e.g., nameplate rating of a boiler or design documentation for a burner system; f) Operational efficiency data as verified and used for heat accountancy purposes, g) Data provided as part of Due Diligence during acquisition, <p>*Performance test results shall be used if these are available.</p>	31/12/16
IC13	<p>Upon completion of IC12 the operator shall review the accuracy of the start up and shutdown % load which is defined in table S1.5 and submit in writing for approval by the Environment Agency the % load settings that should be used for the definition of start up and shutdown.</p>	31/12/16
IC 14	<p>'For LCPD LCP 418 (now LCP 376 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</p>	28/01/16
IC 15	<p>The operator shall submit a written report to the Environment Agency for approval. The report must identify Best Available Techniques (BAT) for an appropriately sized plant suitable for the load at Knapton Generating Station. The performance of the current OCGT at Knapton Generating Station should then be compared, including energy efficiency and emissions of oxides of nitrogen and carbon monoxide. The report shall include an upgrade plan to meet BAT.</p>	31/3/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC 16	The operator shall submit a written report to the Environment Agency for approval. The report must identify measures that will be taken to minimise operation above the environmental equivalent of 1500 hours per year at low load operation (70% load or below 70%) having regard to BAT identified in IC 15.	31/3/16

Table S1.5 Start-up and Shut-down thresholds		
Emission Point and Unit Reference	“Minimum Start-Up Load” Load in MW and as percent of rated power output (%)	“Minimum Shut-Down Load” Load in MW and as percent of rated power output (%)
A1 LCP 376	16 MW; 37.8%	12 MW; 28.3%

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	50 mg/m ³ 70% to base load ¹ 80 mg/m ³ MSUL/MSDL to base load ²	Monthly mean of validated hourly averages	Continuous	BS EN 14181
A1 [point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	55 mg/m ³ 70% to base load ¹ 90 mg/m ³ MSUL/MSDL to base load ²	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	100 mg/m ³ 70% to base load ¹ 160 mg/m ³ MSUL/MSDL to base load ²	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 [point A1 on site plan in schedule 7]	Carbon Monoxide	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	100 mg/m ³ 70% to base load ¹ MSUL/MSDL to base load ²	Monthly mean of validated hourly averages	Continuous	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in schedule 7]	Carbon Monoxide	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	110 mg/m ³ 70% to base load ¹ MSUL/MSDL to base load ²	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Carbon Monoxide	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	200 mg/m ³ 70% to base load ¹ MSUL/MSDL to base load ²	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Sulphur Dioxide	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	100 mg/m ³ 70% to base load ¹ MSUL/MSDL to base load ²	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	As required by the Method Implementation Document for BS EN 15259	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	-	-	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
A1 [Point A1 on site plan in schedule 7]	Oxygen	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Water Vapour	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [Point A1 on site plan in schedule 7]	Stack gas temperature	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [Point A1 on site plan in schedule 7]	Stack gas pressure	LCP No. 376 Gas turbine fired on gas fed from gas conditioning plant activity A2 table S1.1	-	-	Continuous As appropriate to reference	Traceable to national standards
A2 [Point A2 on site plan in schedule 7]	-	Ground flare used for emergency venting	-	-	-	-

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
A3 [Point A3 on site plan in schedule 7]	-	Gas pre heater	-	-	-	-
A4 [Point A3 on site plan in schedule 7]	-	HCL scrubber vent stack	-	-	-	-

Note 1: This ELV applies when the load is >70% throughout the reference period.

Note 2: This ELV applies when the load varies between MSUL/MSDL and 70% load during the daily reference period. MSUL and MSDL are defined in Table S1.5

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 (Oil interceptor pit – prior to discharge to Difford Beck)	Oil or grease	Surface water	No visible emission	Spot check	Weekly	Visual Inspection
W1 (Oil interceptor pit – prior to discharge to Difford Beck)	BOD	Surface water	20 mg/ml	Spot sample	Quarterly	ISO 5815 :1989 or EN 1899 (2 parts)
W1 (Oil interceptor pit – prior to discharge to Difford Beck)	Total suspended solids	Surface water	30 mg/ml	Spot sample	Quarterly	BS EN 872
W1 (Oil interceptor pit – prior to discharge to Difford Beck)	pH	Surface water	5 to 9	Spot sample	Quarterly	BS6068-2.50

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
The point at which the Liquid arisings return pipeline from the Installation meets liquid arisings from Marishes well	Total volume of Produced Water (m3) discharged	Gas Conditioning Plant	No Limit	-	Annually	To be agreed with the Agency in writing.
The point at which the Liquid arisings return pipeline from the Installation meets liquid arisings from Marishes well	Total volume of Produced Condensate (m3) discharged	Gas Conditioning Plant	No Limit	-	Annually	To be agreed with the Agency in writing.
The point at which the Liquid arisings return pipeline from the Installation meets liquid arisings from Marishes well	Total volume of Corrosion Inhibitor (m3) discharged	Gas Conditioning Plant	No Limit	-	Annually	To be agreed with the Agency in writing.
The point at which the Liquid arisings return pipeline from the Installation meets liquid arisings from Marishes well	Total volume of Glycol (m3) discharged	Gas Conditioning Plant	No Limit	-	Annually	To be agreed with the Agency in writing.

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Water treatment Plant	Water Treatment plant effluent	6 monthly	-	Total volume (m ³)

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Carbon Monoxide	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Operating hours at < 70% load	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Operating hours at > 70% load	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to Water Parameters as required by condition 3.5.1	W1	Every 3 months	1 January, , 1 April, 1 July, 1 October
Emissions to Sewer Parameters as required by condition 3.5.1	Liquid Arisings Return Pipeline	Annually	1 October
Operating hours, emergency ground flare	A2	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

Table S4.2: Resource Efficiency Metrics	
Parameter	Units
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 Performance parameters		
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
Operating Hours at less than 70% load	Every 3 months, 1 January, 1 April, 1 July, 1 October	hr
Year to date equivalent Operating hours at 70% load	Every 3 months, 1 January, 1 April, 1 July, 1 October	hr

Table S4.4 Reporting forms				
Media/parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air & Energy	Form IED AR1 – SO ₂ , NO _x and dust mass emission and energy	01/01/16	National	31/12/15
LCP	Form IED HR1 – operating hours	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 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

Table S4.4 Reporting forms				
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Water	Form water 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	01/08/2007
Process Monitoring	Form Process monitoring 1 or other form as agreed in writing by the Agency	01/10/2007	Area Office	01/08/2007
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Agency	01/10/2007	Area Office	01/08/2007
Environmental equivalent hours at 70 % load	As agreed in writing by the Environment Agency	01/01/16	Area Office	-
Operating hours at < 70% load	As agreed in writing by the Environment Agency	01/01/16	Area Office	-

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.

“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

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

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

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

“CEN” means Comité Européen de Normalisation.

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

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

“DLN” means dry, low NO_x burners.

“emissions to land” includes emissions to groundwater.

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

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

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

“environmental equivalent hours” means the operational hours at 70% load or below, excluding the start up and shutdown periods multiplied by the % load divided by 70%.

“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.

“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.

“SI” means site inspector.

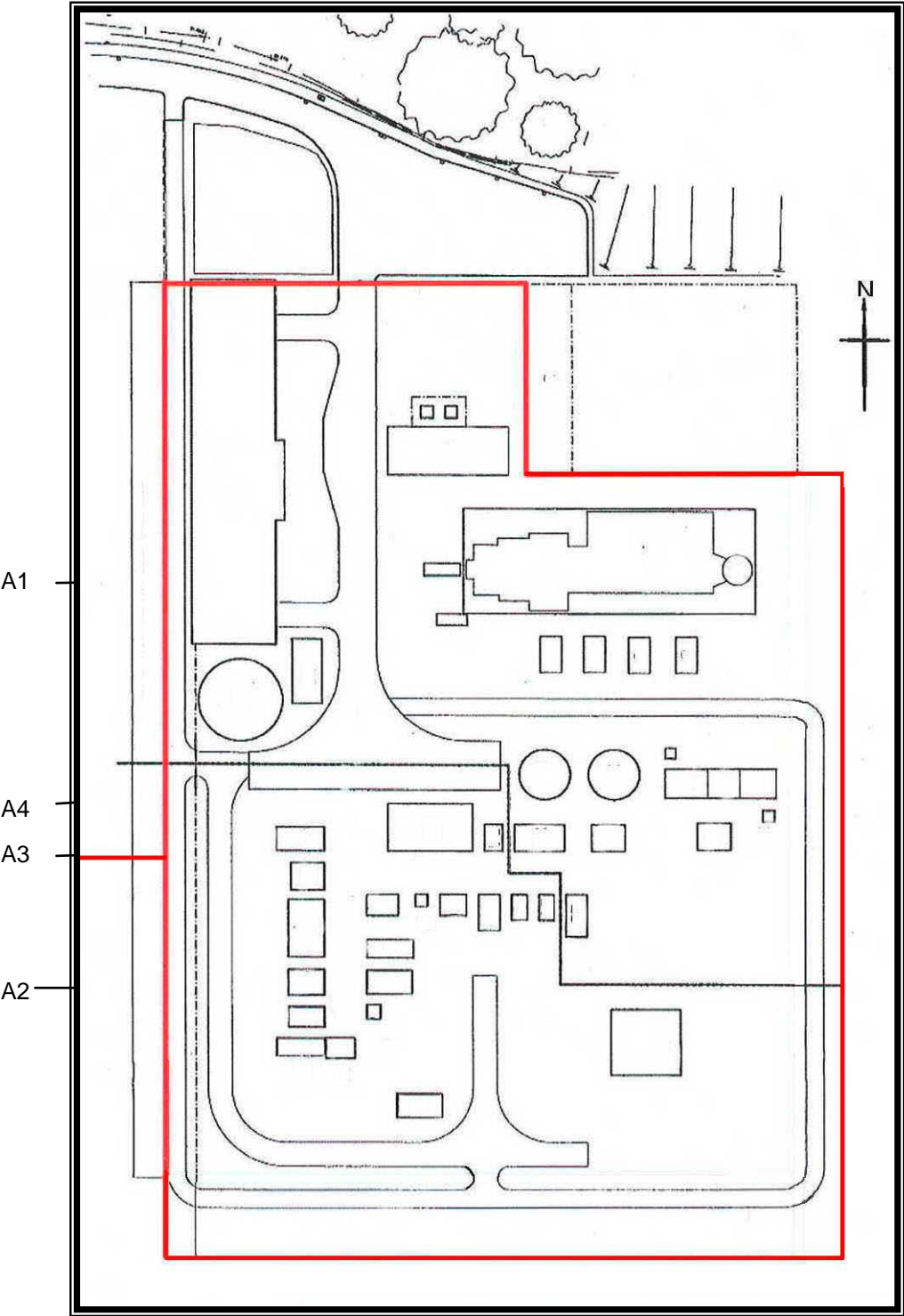
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 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