Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Huntingdon Compressor Station
National Grid Gas PLC
Bigrams Lane
Stonely
St Noets
Cambridgeshire
PE19 5NX

Permit number

DP3139LA

Huntingdon Compressor Station
Permit Number DP3139LA

Introductory note

This introductory note does not form a part of the permit

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows.

National Grid Gas plc is responsible for the safe and efficient delivery of natural gas from the coastal reception terminals to the point of use. It operates twenty-four compressor stations as part of the National Transmission System (NTS). This is a network of high pressure, buried pipelines over 6,900 kilometres in length that enables natural gas from the Terminals to be transported to consumers across the country. Within this system, compressor stations are used to compress the gas being transported to maintain safe system operating pressures. Natural gas is received at the station isolation valves from the NTS pipework at a pressure between 40 and 75 barg and passes through a separation unit where any entrained liquid and solid particles are removed.

The Huntingdon Compressor Station operates three gas turbine compression units comprising of an industrial hot gas generator, power turbine and centrifugal compressor. The three compression units have a combined thermal input of 135MWth. There is one backup generator at the site (1.2MW), which uses diesel fuel. This 'backup' generator is used to supply electrical power to the site in the event of mains failure. The main process emissions from the installation are of oxides of nitrogen (NOx) and carbon monoxide (CO) to air. Uncontaminated surface waters are discharged to controlled water. There are no discharges to sewer from the installation.

National Grid Gas operates an Environmental Management System, which is certified to ISO14001. There is no Climate Change Levy Agreement for the installation. The nearest residential area is about 530m south of the site. There is one SSSI, Grafham Water within 2km of the installation.

Status Log of the permit

Detail	Date	Response Date
Application DP3139LA	Duly made 29/03/2006	
Additional information		10/08/06
Additional information		25/09/06
Additional information		09/11/06
Additional information		21/11/06
Permit determined	22/12/06	

Other PPC permits relating to this installation

Operator	Permit Number	Date of Issue
None		

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation			
Holder	**Reference Number**	**Date of Issue**	**Fully or Partially Superseded**
Transco	IPC AF7487	21/05/1993	Fully superseded
Transco	Water Discharge Consent - PR/C/N/F/6555	12/02/1987	Fully superseded
Transco	Variation Water Discharge Consent – PR/1/N/F/2507A	03/03/1992	Fully superseded

Other existing Licences/Authorisations/Registrations relating to this site		
Holder	**Reference Number**	**Date of issue**
None		

End of Introductory Note

Permit

Permit number

DP3139LA

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) hereby authorises
National Grid Gas PLC ("the operator"),

of whose registered office is

National Grid Gas PLC
1 –3 The Strand
London
WC2H 5EH

company registration number **2006000**

to operate an installation at
Huntingdon Compressor Station
Bigrams Lane
Stonely
St Neots
Cambridgeshire
PE19 5NX

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

Signed	Date
	22/12/06

B Price

Authorised to sign on behalf of the Agency

Conditions

1 Management

1.1 General management

1.1.1 The activities shall be managed and operated:

(a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and

(b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

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 Accidents that may cause pollution

1.2.1 The operator shall:

(a) maintain and implement an accident management plan;

(b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;

(c) make any appropriate changes to the plan identified by a review.

1.3 Energy efficiency

1.3.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities;

(c) take any further appropriate measures identified by a review.

1.4 Efficient use of raw materials

1.4.1 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 4 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 appropriate further measures identified by a review.

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

1.5.1. The operator shall:

(a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;

(b) review and record at least every 4 years whether changes to those measures should be made; and

(c) take any further appropriate measures identified by a review.

1.6 Site security

1.6.1. Site security measures shall prevent unauthorised access to the site, as far as practicable.

2. Operations

2.1 Permitted activities

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

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 2 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 Agency.

2.3.2 Subject to condition 2.3.3 no raw materials or fuels listed in schedule 3 table S3.1 shall be used unless they comply with the specifications set out in that table.

2.3.3 The turbine units Cab A, Cab B and Cab C shall not be operated unless one or more of the following criteria are met:

(a) the total period of operation has not exceeded 3700 hours in aggregate in any calendar year or that number of hours in aggregate specified the annual review of operating hours detailed in the revised Network Review in condition 2.3.5 that has been agreed in writing with the Agency in each year and

(b) when the gas turbine systems require routine maintenance or functional testing; or,

(c) when such operation is required to meet the gas flow or pressure increase requirements for the installation; or,

(d) when such use has been agreed in writing with the Agency at least 14 days in advance.

2.3.4 The Operator shall record the number of hours that each turbine has operated and the aggregate period of turbine operating time in each month and record the reason for such operation in relation to the criteria specified in condition 2.3.3.

2.3.5 The Operator shall, by the 30 April each year, undertake a comprehensive review of the Network Review (including predicted and actual operating hours on a station by station basis). The extent and conclusions of each annual review shall be agreed in writing with to the Agency prior to 1 July each year.

2.4 Off-site conditions

There are no off-site conditions under this section.

2.5 Improvement programme

2.5.1 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 Agency.

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

2.6 Pre-operational conditions

There are no pre-operational conditions in this permit.

2.7 Closure and decommissioning

2.7.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

2.7.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site to a satisfactory state.

2.7.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.

2.7.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.8 Site protection and monitoring programme

2.8.1 The operator shall, within 2 months of the issue of this permit, submit a site protection and monitoring programme.

2.8.2 The operator shall implement and maintain the site protection and monitoring programme and shall carry out and record a review of it at least every 4 years.

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 4 tables S4.1, S4.2 and S4.3.

3.1.2 The limits given in schedule 4 shall not be exceeded.

3.2 Transfers off-site

3.2.1 Records of all the wastes sent off site from the activities, for either disposal or recovery, shall be maintained.

3.3 Fugitive emissions of substances

3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.3.2 All liquids, 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.

3.4 Odour

3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:

(a) point source emissions specified in tables S4.1, S4.2 and S4.3;

(b) process monitoring specified in tables S4.4

3.6.2 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 continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental and other monitoring as specified in condition 3.6.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Agency

3.6.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 4 tables S4.1, S4.2 and S4.3 unless otherwise specified in that schedule.

3.6.5 Within 6 months of the issue of this permit (unless otherwise agreed in writing by the Agency) the site reference data identified in the site protection and monitoring programme shall be collected and submitted to the Agency.

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 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) the site protection and monitoring programme.

4.1.2 Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3 All records required to be held by this permit shall be held on the installation on-site and shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

4.2.1 A report or reports on the performance of the activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the 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 this permit against the relevant assumptions, parameters and results in the assessment of the impact of the emissions submitted with the application;

(b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;

(c) the annual production /treatment data set out in schedule 5 table S5.2;

(d) the performance parameters set out in schedule 5 table S5.3 using the forms specified in table S5.4 of that schedule; and

(e) details of any contamination or decontamination of the site which has occurred.

4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the 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 5 table S5.1;

(b) for the reporting periods specified in schedule 5 table S5.1 and using the forms specified in schedule 5 table S5.4 ; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 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 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency

4.2.6 The results of reviews and any changes made to the site protection and monitoring programme shall be reported to the Agency, within 28 days of the review or change.

4.3 Notifications

4.3.1 The Agency shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in the permit;

(c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3 Prior written notification shall be given to the Agency of the following events and in the specified timescales:

(a) as soon as practicable prior to the permanent cessation of any of the activities;

(b) cessation of operation of part or all of the activities for a period likely to exceed 1 year; and

(c) resumption of the operation of part or all of the activities after a cessation notified under (b) above.

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

4.3.5 Where the 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 Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.

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

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

(b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and

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

Climate Change Agreement

4.3.7 Where the operator has entered into a direct participant agreement in the emissions trading scheme which covers emissions relating to the energy consumption of the activities, the operator shall notify the Agency within one month of:

(a) a decision by the operator to withdraw from or the Secretary of State to terminate that agreement.

(b) a failure to comply with an annual target under that agreement at the end of the trading compliance period.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the PPC Regulations	**Description of specified activity**	**Limits of specified activity**
S1.1, Part A(1)(a) - Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more	Gas turbine using natural gas for the purpose of compressing natural gas. Standby generator using gas oil. Water bath heater using natural gas	From receipt of raw materials to despatch of products and waste

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to section 2.1 and 2.2 in the Application.	29/03/06
Application	The response to section B2.10 and Appendix 7 in the application	29/03/06

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall review measures to improve the storage and bunding of the waste oil and diesel store such that any spillage is contained and may be fully recovered. The Operator shall report to the Agency in writing of any of the measures undertaken	01/01/08
IC2	The Operator shall update the documented system of environmental management for the installation with a procedure for the monitoring and management of noise emissions. Upon completion of the procedure a summary of the document shall be submitted to the Agency in writing. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary. The changes identified shall be implemented by the Operator from the date of approval by the Agency.	01/01/08
IC3	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S2.03, July 2005. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.	01/01/08

IC4	The Operator shall undertake a review of vented and fugitive gas emission from the installation. The review shall address the following issues:
	• Identify each potential source of such emission, quantify and assess the impact on the environment.
	• Consider the options to minimise such emissions, giving consideration (but not limited) to the following:
	  • current vent delay philosophy
	  • emissions of odorised gas (if any)
	  • the number of compressor system vents
	  • the natural gas venting philosophy
	  • discharge sequencing to prevent inappropriate pressure loads on vent systems
	  • the use of gas recycling or recompression
	  • use of vented gas as a fuel
	  • gas storage, flaring or other alternative venting techniques
	Where improvements are identified propose a timetable to implement such improvements.
	The review shall be submitted in writing to the Agency. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary. The improvements identified shall be implemented by the Operator from the date of approval by the Agency.
		01/01/08

IC5	The Operator shall carry out a waste minimisation audit of the installation that would be considered as part of the National Grid Gas network wide audit. The assessment shall have regard to the Agency Guidance Note S2.03, July 2005, Section 2.4.2. The audit report shall provide information on any lines and operations identified as causing a process loss, specifying for each, the amount lost (tonnes/year) and the percentage recovered in process or recycled. A summary of the audit shall be sent to the Agency in writing together with a timetable to implement any necessary changes identified. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary. The changes identified shall be implemented by the Operator from the date of approval by the Agency.	01/01/09
IC6	The Operator shall produce an Energy Efficiency Plan for the installation that would be considered as part of the National Grid Gas network wide plan. The plan shall have regard to the Agency Guidance Note IPPC S2.03, July 2005, Section 2.7.2.	01/01/09

Schedule 2 - Site plan

Subject to national security

Schedule 3 - Waste types, raw materials and fuels

Table S3.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Gas oil until 31/12/2007	Shall not exceed 0.2% w/w sulphur content
Gas oil from 01/01/2008	Shall not exceed 0.1% w/w sulphur content

Schedule 4 – Emissions and monitoring

For the purposes of this Schedule, the following interpretations shall apply:

- An invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the predictive emission monitoring system (PEMS). 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.

- Any day, in which more than three hourly average values are invalid shall be invalidated.

Table S4.1 Point source emissions to air – emission limits and monitoring requirements (excluding start up, shut down and unit operation at loads <55% of MCR)						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab A Avon 1533 fired on natural gas via stack through silencer etc	160 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			160 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	
A2 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab B Avon 1533 fired on natural gas via stack through silencer etc	160 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			160 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	
A3 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab C Avon 1533 fired on natural gas via stack through silencer etc	160 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			160 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	
A1 (A Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab A Avon 1533 fired on natural gas via stack through silencer etc	-	Time averages of at least 10 minutes at each selected load point on each turbine unit.	When operational hours in any year are less than or equal to 2,200 hours; discontinuous, every 2 years	BS EN 14792
A 2 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab B Avon 1533 fired on natural gas via stack through silencer etc		Minimum of five distinct operating rates over the total range of normally occurring turbine operating rates.	When operational hours in any year are greater than 2,200 hours; discontinuous, every year or every 4,380 operational hours, whichever is sooner.	
A3 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Combustion unit Cab C Avon 1533 fired on natural gas via stack through silencer etc			Following any changes to process equipment, configurations or operating practices that may affect the accuracy of the data generated by the Predictive Monitoring System. Discontinuous.	
A1 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab A Avon 1533 fired on natural gas via stack through silencer etc	750 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			750 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	

Table S4.1 Point source emissions to air – emission limits and monitoring requirements (excluding start up, shut down and unit operation at loads <55% of MCR)						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A2 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab B Avon 1533 fired on natural gas via stack through silencer etc	700 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			700 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	
A3 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab C Avon 1533 fired on natural gas via stack through silencer etc	750 mg/m^3	Daily average	Continuous	Predictive Emissions Monitoring as described in the application
			750 mg/m^3	95% of validated hourly averages within a calendar year	Continuous	
A1 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab A Avon 1533 fired on natural gas via stack through silencer etc	-	Time averages of at least 10 minutes at each selected load point on each turbine unit.	When operational hours in any year are less than or equal to 2,200 hours; discontinuous, every 2 years	BS EN 15058 or as agreed in writing with the Agency
A2 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab B Avon 1533 fired on natural gas via stack through silencer etc		Minimum of five distinct operating rates over the total range of normally occurring turbine operating rates.	When operational hours in any year are greater than 2,200 hours; discontinuous, every year or every 4,380 operational hours, whichever is sooner.	
A3 (Application part 3 Figure 1.3c,detailed in Table B2.2.1.2 of the application)	Carbon Monoxide (CO)	Combustion unit Cab C Avon 1533 fired on natural gas via stack through silencer etc			Following any changes to process equipment, configurations or operating practices that may affect the accuracy of the data generated by the Predictive Monitoring System; discontinuous	
A4 (detailed in Table B2.2.1.2 of the application)	No parameters set	Diesel Oil tank breather vent	No limit set	-	-	Permanent sampling access not required.
A5 (detailed in Table B2.2.1.2 of the application)	No parameters set	Generator exhaust stack	No limit set	-	-	Permanent sampling access not required.

Table S4.1 Point source emissions to air – emission limits and monitoring requirements (excluding start up, shut down and unit operation at loads <55% of MCR)						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A6 (detailed in Table B2.2.1.2 of the application)	No parameters set	Lube oil store breather vent	No limit set	-	-	Permanent sampling access not required.
A7 – A31, A39 – A46 (detailed in Table B2.2.1.2 of the application)	No parameters set	Vents from Cab units A, B & C	No limit set	-	-	Permanent sampling access not required.
A32 (detailed in Table B2.2.1.2 of the application)	No parameters set	Depressurisation plant – vent stacks	No limit set	-	-	Permanent sampling access not required.
A33 detailed in Table B2.2.1.2 of the application)	No parameters set	Water bath heater exhaust gases	No limit set	-	-	Permanent sampling access not required.
A34 (detailed in Table B2.2.1.2 of the application)	No parameters set	Gas pressure relief valve	No limit set	-	-	Permanent sampling access not required.
A35, A36 & A38 (detailed in Table B2.2.1.2 of the application)	No parameters set	Cab A, B & C emergency vent stack	No limit set	-	-	Permanent sampling access not required.
A37 (detailed in Table B2.2.1.2 of the application)	No parameters set	Station emergency vent stack	No limit set	-	-	Permanent sampling access not required.
A47 – A50 (detailed in Table B2.2.1.2 of the application)	No parameters set	Offices	No limit set	-	-	Permanent sampling access not required.

Table S4.2 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(Application part 3 Figure 1.3c, detailed in Table B2.2.1.2 of the application) on site plan in schedule 2 emission to River Don	Oil or grease	Surface water via interceptor	No visible emission	Any sample	Daily when site is manned or at frequency of no less than fortnightly.	Visual inspection. Permanent sampling access not required

Table S4.3 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**
None	-	-	-	-	-	-

Table S4.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Turbine units A, B & C	Operating hours at less than 55% MCR	Continuous	Not applicable	Shall be reported annually
Turbine units A, B & C	Operating hours	Continuous	Not applicable	Shall be reported annually

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen Parameters as required by condition 3.6.1.	A1, A2, A3	Every 3 months	01/01/07
Carbon monoxide Parameters as required by condition 3.6.1.	A1, A2, A3	Every 3 months	01/01/07
Oxides of nitrogen Parameters as required by condition 3.6.1.	A1, A2, A3	PEMS check as required by table S4.1 in Schedule 4	01/01/07
Carbon monoxide Parameters as required by condition 3.6.1.	A1, A2, A3	PEMS check as required by table S4.1 in Schedule 4	01/01/07
Oil or grease Parameters as required by condition 3.6.1	W1	Every 6 months	01/01/07

Table S5.2: Annual production/treatment

Parameter	Units
None applicable	-

Table S5.3 Performance parameters

Parameter	Frequency of assessment	Units
NOx	Every 3 months	t/hr operated
CO_2	Every 3 months	t/hr operated
Natural gas usage	Annually	MJ and tonnes
Water usage	Annually	tonnes
Annual running hours at <55% per unit	Annually	hrs
Annual running hours per unit	Annually	hrs

Table S5.4 Reporting forms

Media/parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air	Form air 1 – Continuous measurement invalidation log or other form as agreed in writing by the Agency	Permit issue	SI	22/11/06
Air	Form air 2 – PPC Continuous or other form as agreed in writing by the Agency	Permit issue	SI	22/11/06
Air	Form air 3 – PPC Discontinuous (NOx & CO) or other form as agreed in writing by the Agency	Permit issue	SI	22/11/06
Energy usage	Form energy 1 – Energy usage summary or other form as agreed in writing by the Agency	01/01/2004	SI & Central office	22/11/06
Water usage	Form water usage1 or other form as agreed in writing by the Agency	Permit issue	SI	01/10/06
Water	Form water 1 or other form as agreed in writing by the Agency	Permit issue	SI	01/10/06
Other performance indicators	Form performance 1 or other form as agreed in writing by the Agency	Permit issue	SI	01/10/06

Schedule 6 - 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 PPC Regulations.

Part A

Permit Number	
Name of operator	
Location of Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission 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 installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of National Grid Gas Plc

Schedule 7 - Interpretation

"a*ccident*" means an accident that may result in pollution.

"a*nnually*" means once every year.

"a*pplication*" 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 4 to the PPC Regulations.

"authorised officer" means any person authorised by the 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.

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

"DLN" means dry, low NOx burners.

"emissions to land", includes emissions to groundwater.

"fugitive emission" means an emission to air, water or land from the activities which is 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.

"*land protection guidance*", means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: application site report and site protection monitoring programme".

"*large combustion plant"* (LCP) is a boiler or group of boilers discharging waste gases through a common windsheld or stack, where the total thermal input is 50 MWth or more, based on gross calorific value.

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

"MCR" means maximum continuous rating.

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

"*National Emission Reduction Plan*" (NERP) is a plan issued by Defra in accordance with Article 4.6 of the Large Combustion Plants Directive 2001/80/EC.

"ncv" means net calorific value.

"notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"notify" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

"*reference conditions"* means 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.

"*site protection and monitoring programme*" means a document which meets the requirements for site protection and monitoring programmes described in the Land Protection Guidance.

"start up" means when fuel gas is first introduced into the turbine until the units are loaded and emissions are within normal operating limits for the type of machine. This shall not exceed 30 minutes.

"shut down" means when the units are no longer within operating limits for the type of machine until fuel gas is no longer being introduced into the turbine. This shall not exceed 30 minutes.

"*SI*" means site inspector.

"year" means calendar year ending 31 December.

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

(a) 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.

(b) 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.

(c) in relation to gas turbines or compression ignition engines; an oxygen content of 15%, dry, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, for liquid and gaseous fuels.

(d) in relation to the manufacture of gypsum based products; an oxygen content of 18%, dry, the concentration at a temperature of 273K, and at a pressure of 101.3 kPa, for liquid and gaseous fuels.

In relation to spark ignition engines; an oxygen content of 5%, dry, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, for liquid and gaseous fuels.

END OF PERMIT