Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Sutton Bridge Power B

EDF Energy (West Burton Power) Ltd
Centenary Way
Sutton Bridge
Spalding
Lincolnshire
PE12 9TF

Permit number

NP3137SG

Sutton Bridge Power B
Permit Number NP3137SG

Introductory note

This introductory note does not form a part of the permit

The main features of the installation are as follows.

The proposed Sutton Bridge Power B is on land adjacent to the existing Sutton Bridge Power A on the eastern edge of the town of Sutton Bridge, Lincolnshire.

Sutton Bridge Power B is being developed to provide EDF Energy (West Burton Power) Ltd with an efficient and flexible power station to meet its future energy supply requirements and to help promote an environmental policy of clean fuel. The power station will use proven technology and consist of an efficient gas fired Combined Cycle Gas Turbine (CCGT) module to meet customer demand, which will require the power station to operate in 'two shift', 'part load' and 'base load' modes. The power station will also include an emergency start unit of the order of 20MWe to provide electrical power for station start-up in the event of a collapse of the national grid.

Sutton Bridge Power B will displace much less efficient, older technology power stations and therefore improve the environmental impact of power generation in the UK.

The proposed power station (Sutton Bridge B) will constitute a separate installation to that of the existing neighbouring power station at Sutton Bridge Power A under the PPC Regulations 2000 (England and Wales) as Sutton Bridge Power B will not share any technical links with the existing power station.

A brief description of the proposed power station is as follows:

The power station will provide of the order of 1260 MW of electrical power and will normally burn natural gas, however, distillate fuel oil (DFO) may be used as a standby fuel. The power station will be capable of operating on a base load, part load and two shifting basis and will help to displace power at present generated by less efficient and more polluting power stations. The power station will help to reduce national transmission losses and reduce the cost and emissions of those losses.

This CCGT power station will comprise three main generating units each consisting of a gas turbine and a waste heat recovery boiler, associated steam turbine plant will serve the three units generating further power. The total power output of these units will be of the order of 1260 MWe of electrical power.

Fuel is burned in the combustion chamber of a gas turbine from where the hot gases expand through and drive the gas turbine to generate electricity. The hot exhaust gases are then used in a waste heat recovery boiler to generate steam, which in turn is used to generate electricity via a steam turbine plant. The spent steam leaving the steam turbine plant passes to air cooled condensers where the steam is condensed. There will be no visible plumes or discharges of heated water to a local watercourse. The resultant condensate is returned to the waste heat recovery boiler for reuse. The power station will incorporate a boiler feed-water treatment plant.

In addition to these main generating units, of approximately 1260 MWe capacity, the development will include a 20 MWe dual fuelled diesel generation unit to provide an emergency start capability in the event of a collapse of the grid system. A small auxiliary boiler may also be installed to provide steam for the start-up of the power station and would operate for a few hours at a time, at intermittent intervals.

Sutton Bridge Power B will connect to the National Grid transmission system 4.3km to the southeast of the site via the existing 'Walpole' 400 kV substation.

The power station will normally burn natural gas, which is an inherently clean fuel. At this stage it is not ascertained whether there is sufficient capacity in the existing gas pipeline connection to the site to negate the need for a new gas pipeline connection. The stand-by fuel will be DFO. Storage tanks will allow for storage of up to 16 000m^3 (13 500 tonnes) of DFO that will be brought to site by road tanker.

The main discharges to the environment are combustion exhaust gases from the stack and discharges of aqueous effluent to sewer. There will be no discharges of process water to any local watercourse. Surface waters from the site will be discharged to the River Nene to the West of the site.

The proposed plant is approximately seven kilometres South of the Wash Special Protection Area (SPA) and the North Norfolk Coast Special Area of Conservation (SAC). These areas extend to some 34 kilometres.

Status Log of the permit		
Detail	Date	Response Date
Application NP3137SG	Duly made 13/10/2006	
Extension requested to 30/04/07	08/02/2007	Extension agreed by Operator 14/02/2007
Extension requested to 30/06/07	25/04/2007	Extension agreed by Operator 03/05/2007
Permit determined	18/06/2007	

End of Introductory Note

Permit

Permit number
NP3137SG

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 EDF Energy (West Burton Power) Ltd("the operator"),

whose registered office is

EDF Energy (West Burton Power) Ltd
40 Grosvenor Place
Victoria
London
SW1X 7EN

company registration number 4267569 to operate an installation at
Sutton Bridge Power B
Centenary Way
Sutton Bridge
Spalding
Lincolnshire
PE12 9TF

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

Signed	Date
	18 June 2007

Phil Reynolds Regulatory Team Leader (PIR Permitting)

Strategic Permitting Group Nottingham

Authorised to sign on behalf of the Agency

Conditions

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; and

(c) take any further appropriate measures 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 Standby fuel (Distillate Fuel Oil) may be used for no more than 500 hours per year per gas turbine.

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.

2.6 Pre-operational conditions

2.6.1 The activities shall not be brought into operation until the measures specified in Schedule 1 Table S1.4A have been completed.

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, submit a site protection and monitoring programme three months prior to the installation commissioning date.

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

3. Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to air, water 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.

3.4 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.

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 specified in condition 3.6.1 shall have either MCERTS certification or MCERTS accreditation 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.

3.7 Monitoring for the purposes of the Large Combustion Plant Directive

3.7.1 All LCP monitoring required by this permit shall be carried out in accordance with the provisions of Annex VIII of the Large Combustion Plant Directive.

3.7.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in Schedule 4, the Operator shall:

(a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the 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 measures.

3.7.3 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.

3.7.4 Unless otherwise agreed in writing by the Agency in accordance with condition 3.7.5 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.

3.7.5 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 Agency.

3.7.6 Where required by a condition of this permit to check the measurement equipment the operator shall submit a report to the Agency in writing, within 28 days of the completion of the check.

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 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.

4.2.4 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency

4.2.5 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.

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.

4.3.8 From 1 January 2008 the operator shall inform the 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 7 shall have the meaning given in that Schedule.

Schedule 1 - Operations

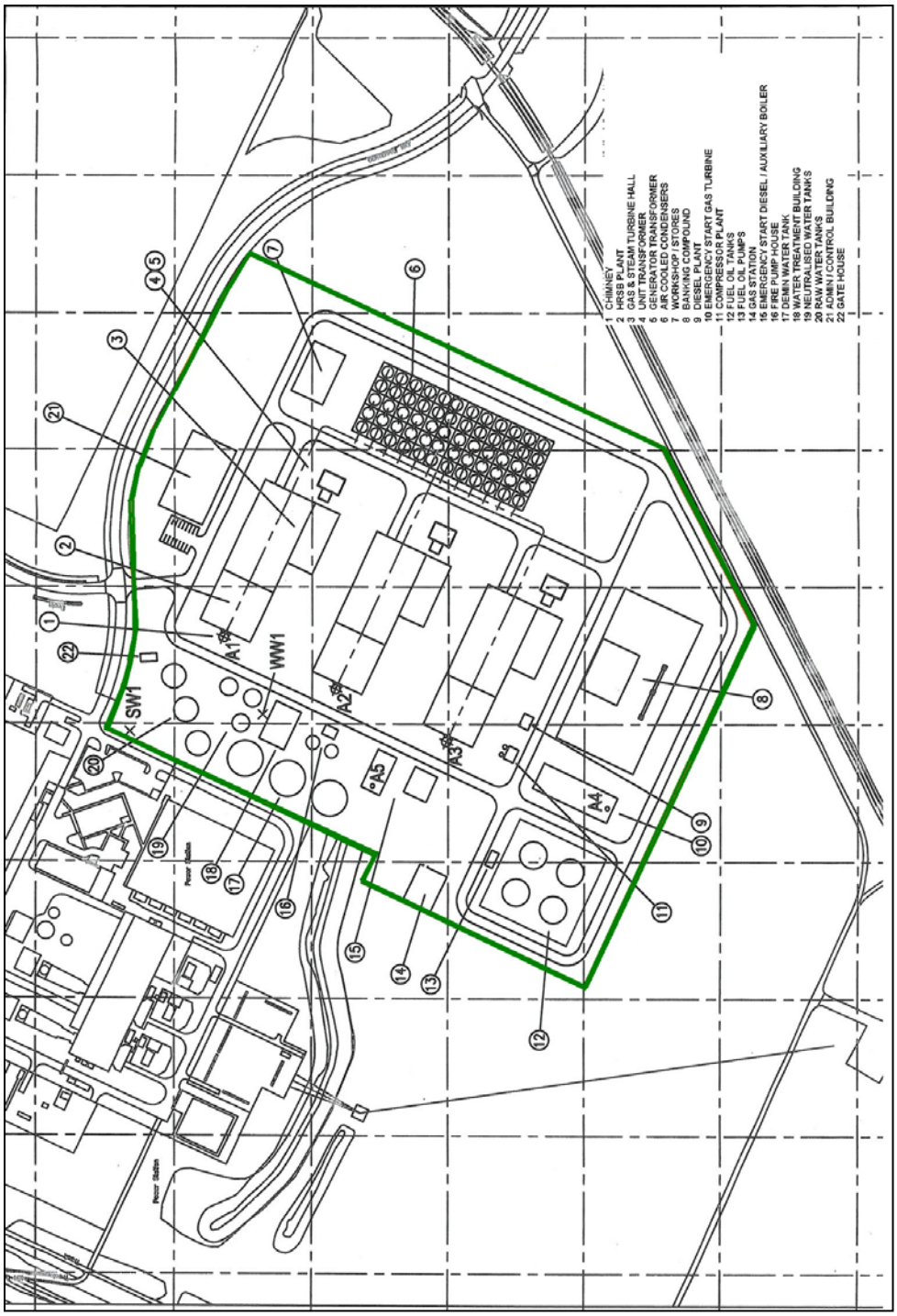
Table S1.1 activities		
Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 1.1 A(1) (a) : Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more	Three gas turbines (726 MWth input each) (Each with an 80m stack)	From receipt of natural gas or DFO through to discharge of exhaust gases and generation of electricity
Water treatment plant Section 5.3 A(1)(c) (A)	Demineralisation of water	Receipt of water and other raw materials through to export to boiler feed system and drains
Directly Associated Activities		
Steam system	Three waste heat recovery boilers, steam turbine, associated electrical generators, condensers and feed water systems	From receipt of water from water treatment, all steam pipework, condensate pipework and associated pumps and vents
Raw materials handling and storage	Receipt storage and handling of water treatment chemicals, fuel and lubricating oils, turbine cleaning chemicals and all other raw materials.	From receipt of raw materials to their point of use
Cooling water system	An air cooled condenser	From receipt of warmed water from the discharged steam condensers to the return of cooled water to the condensers
Auxiliary Boiler	One steam boiler (12MWth input)	From receipt of natural gas through to discharge of exhaust gases and generation of steam for start up of the power station.
Auxiliary diesel engine	One diesel engine (50MWth input)	To provide emergency electrical power to start up the power station
Waste handling and storage	Handling, storage and dispatch of waste.	Storage of waste in labelled containers in designated areas and dispatch of waste.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to sections B 2.1 and B2.2 in the Application.	13/10/2006

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall notify the Environment Agency in writing of the date when commissioning the installation is complete.	As notified
IC2	A written procedure shall be submitted to the agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring program shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure. The procedure shall be implemented by the operator from the date of approval in writing by the Agency.	6 months after the completion of IC1
IC3	The Operator shall submit a written commissioning report to the Environment Agency, providing details of the performance of the installation against the conditions of this Permit and any minor operational changes to the information provided in the original permit application documents.	6 months after the completion of IC1
IC4	The Operator shall carry out a noise monitoring survey at the installation to quantify the noise impact of the installation against information supplied in the permit application documents. The measurement methodology and receptor monitoring locations shall be agreed in writing with the Environment Agency. The results of the survey shall be reported to the Environment Agency in writing together with any consequent proposals to meet BAT standards.	6 months after the completion of IC1
IC5	The Operator shall provide a written report to the Environment Agency, following a review of the impact of emissions on the environment from the first six months of operation post completion of commissioning.	9 months after the completion of IC1
IC6	The Operator shall develop and implement an Environmental Management System in accordance with ISO 14001. The Operator shall then seek certification of the system.	12 months after the completion of IC1
IC7	The Operator shall provide a written report to the Environment Agency regarding oxides of nitrogen and carbon monoxide. The report shall investigate techniques by which the releases of these substances, and others, may be further reduced and shall propose a plan and time scale for implementation that shall be agreed in writing with the Environment Agency.	12 months after the completion of IC1
IC8	The operator shall prepare a site closure plan. It shall contain a closure and decommissioning plan that is consistent with indicative BAT guidance in Section 2.11 of Technical Guidance Note "IPPC Sector Guidance Note Combustion Activities". The report shall include evidence of procedures to ensure that the plan is subject to review following incidents and at a suitable frequency. The Operator shall implement the plan from the Environment Agency's date of approval.	18 months after completion of IC1
IC9	The Operator shall submit in writing details of the method for the determination of particulate matter and sulphur dioxide released from emission points A1 – A3 including details of the verification of the suitability of such a method.	1 month after the completion of IC1

Table S1.4A Pre-operational measures	
Reference	Pre-operational measures
1	The Operator shall undertake a review of the PPC Permit application against the final plans for the installation, prior to construction to ensure that the final proposals will represent BAT and that the application still accurately reflects the final design and operating procedures. The Operator shall submit a written report to the Environment Agency detailing the findings of this review 12 months prior to the installation commissioning date.
2	At least six months before the start of commissioning, the Operator shall submit a written report to the Environment Agency detailing the proposals for the installation commissioning programme, including measures to be taken to ensure adequate monitoring is undertaken to prevent pollution.
3	The Operator shall submit written details of the consent to discharge trade effluent, when issued, by the sewage undertaker, six months prior to the installation commissioning date.
4	The Operator shall submit written details of an accident management system that shall be agreed by the Environment Agency, six months prior to the installation commissioning date.
5	The Operator shall submit a Site Protection and Monitoring Programme three months prior to the installation commissioning date. (See also condition 2.8.1)
6	At least 4 weeks before the start of commissioning, the operator shall submit a report demonstrating that the necessary procedures are in place for the operation of the installation and staff have received the necessary training.

Schedule 2 - Site plan



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Schedule 3 - Waste types, raw materials and fuels

Table S3.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Distillate fuel oil until 31/12/2007	0.2% w/w maximum sulphur content
Distillate fuel oil from 01/01/2008	0.1% w/w maximum sulphur content

Schedule 4 – Emissions and monitoring

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

- For the continuous measurement systems fitted to the LCP release points defined in Table S4.1 the validated hourly, 48 hourly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95 percent confidence interval.

- The 95 percent confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20 percent.

- The 95 percent confidence interval for dust releases of a single measured result shall be taken to be 30 percent.

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.

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

Table S4.1 Point source emissions to air from Gas Turbines						
Emission point ref. Location & height in metres.	Source	Parameter	Limit [1]	Reference period	Monitoring frequency	Monitoring standard or method
A1[As on site plan in Schedule 2] 80m stack height	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT1)	Oxides of Nitrogen	50mg/m^3 [2]	Daily mean of validated hourly averages	Continuous	BS EN 14181
		Oxides of Nitrogen	120mg/m^3 [3]		Continuous	BS EN 14181
		Carbon Monoxide	50mg/m^3 [2]		Continuous	ISO 12039
		Carbon Monoxide	100mg/m^3 [3]		Continuous	ISO 12039
		Sulphur Dioxide	No set limit[4]	–		Calculation[5]
		Particulate Matter	No set limit[4]	–		Calculation[5]
A2[As on site plan in Schedule 2] 80m stack height	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT2)	Oxides of Nitrogen	50mg/m^3 [2]	Daily mean of validated hourly averages	Continuous	BS EN 14181
		Oxides of Nitrogen	120mg/m^3 [3]		Continuous	BS EN 14181
		Carbon Monoxide	50mg/m^3 [2]		Continuous	ISO 12039
		Carbon Monoxide	100mg/m^3 [3]		Continuous	ISO 12039
		Sulphur Dioxide	No set limit[4]	–		Calculation[5]
		Particulate Matter	No set limit[4]	–		Calculation[5]
A3[As on site plan in Schedule 2] 80m stack height	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT3)	Oxides of Nitrogen	50mg/m^3 [2]	Daily mean of validated hourly averages	Continuous	BS EN 14181
		Oxides of Nitrogen	120mg/m^3 [3]		Continuous	BS EN 14181
		Carbon Monoxide	50mg/m^3 [2]		Continuous	ISO 12039
		Carbon Monoxide	100mg/m^3 [3]		Continuous	ISO 12039
		Sulphur Dioxide	No set limit[4]	–		Calculation[5]
		Particulate Matter	No set limit[4]	–		Calculation[5]
A1, A2 & A3[As on site plan in Schedule 2] 80m stack height	Exhaust from Waste heat recovery boilers and gas turbines 1,2 & 3 (GT1,2 &3)	Oxides of Nitrogen	100mg/m^3 [2]	95percentile of validated hourly averages within a calendar year.	Continuous	BS EN 14181
		Oxides of Nitrogen	No set limit [3]			
A1[As on site plan in Schedule 2]	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT1)	Oxides of Nitrogen	100mg/m^3 [2]	Average over sampling period	Annually	BS EN 14792
A2[As on site plan in Schedule 2]	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT2)	Oxides of Nitrogen	100mg/m^3 [2]	Average over sampling period	Annually	BS EN 14792
A3[As on site plan in Schedule 2]	Exhaust from Waste heat recovery boiler and gas turbine 1 (GT3)	Oxides of Nitrogen	100mg/m^3 [2]	Average over sampling period	Annually	BS EN 14792
A4[As on site plan in Schedule 2]	Exhaust from Diesel Generator	Oxides of Nitrogen	No set limit	Average over sampling period	Annually	BS EN 14792
A5[As on site plan in Schedule 2]	Exhaust from Auxiliary boiler	Oxides of Nitrogen	No set limit	Average over sampling period	Annually	BS EN 14792

[1] - These limits do not apply during start up or shut down.
[2] - When firing on natural gas.
[3] - When firing on distillate fuel oil.
[4] - When firing on natural gas and distillate fuel oil.
[5] - Using emission factors agreed in writing with the Environment Agency, through completion of IC9.

Table S4.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
WW1 on Site Plan in Schedule 2. Discharge of clean drainage water to River Nene.	Site drainage oil interceptors	Flow	No set limit	Continuous	Continuous	
		Oil & grease	None visible	Spot	Monthly	
		Suspended solids	30 mg/l	Spot	Monthly	BS EN 872

Table S4.3 Point Source emissions to sewer and other transfers off-site.						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
SW1 on Site Plan in Schedule 2. Discharge to Anglian Water Services	Effluent Treatment Plant	Flow	No set limit	Continuous	Continuous	
		pH	5-9	Continuous	Continuous	BS6068-2.50
		Temperature	No set limit	Continuous	Continuous	
		Oil & grease	None visible	Spot	Monthly	
		Suspended solids	No set limit	Spot	Monthly	BS EN 872

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 (Parameters as required by condition 3.6.1)	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen - continuous	A1, A2, A3	Every 3 months	From start of operations
Carbon Monoxide - continuous	A1, A2, A3	Every 3 months	From start of operations
Oxides of nitrogen - discontinuous	A1, A2, A3, A4, A5	Annually	From start of operations
Carbon Monoxide - discontinuous	A1, A2, A3, A4, A5	Annually	From start of operations
Oxides of nitrogen - annual mass release	A1, A2, A3	Annually	From start of operations
Sulphur dioxide - annual mass release	A1, A2, A3	Annually	From start of operations
Particulate matter - annual mass release	A1, A2, A3	Annually	From start of operations

Table S5.2: Annual production/treatment	
Parameter	Units
Power generated	GWHrs

Table S5.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	M^3
Gas usage per GJ generation	Annually	GJ/GJ
Oil usage per GJ generation	Annually	GJ/GJ
Thermal efficiency	Annually	Percent
Energy Usage	Annually	GJ
Waste disposed of per GJ generated	Annually	Kg/GJ
Total mass release of oxides of nitrogen	Annually	tonnes

Table S5.4 Reporting forms				
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air	Form Air – 1 LCPD discontinuous reference monitoring or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Air	Form Air – 2 LCPD continuous monitoring or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Air	Form Air – 3 LCPD continuous measurement systems invalidation log or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Air	Form Air - 4 LCPD Annual mass emission summary or other form as agreed in writing by the Agency	Permit issue	SI & Central office	18/06/07
Air	Form Air - 5 LCPD Energy Usage summary or other form as agreed in writing by the Agency	Permit issue	SI & Central office	18/06/07
Water	Form Water 1 or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Sewer	Form Sewer 1 or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Water usage	Form Water usage1 or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Agency	Permit issue	SI	18/06/07

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 EDF Energy (West Burton Power) Ltd

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.

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

"CEN Standards" means the European Committee for Standards

"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 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.

"ISO Standards" means International Organisation for Standards

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

"Large Combustion Plant Directive" means Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants.

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

"mcr" means maximum continuous rating.

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

"*National Emission Reduction Plan*" (NERP) is the plan issued by Defra in accordance with Article 4.6 of the Large Combustion Plants Directive and associated guidance

"ncv" means net calorific value.

"notify without delay" / "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.

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

"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.

"SI" means site inspector

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

"*waste code*" means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"year" means calendar year ending 31 December.

Unless otherwise stated any references in this permit to 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. 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 percent, dry for liquid and gaseous fuels, 6 percent, dry for solid fuels.

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

END OF PERMIT