

Notice of variation and consolidation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

SSE Generation Limited

Snodland Paper Mill CHP
Mill Street
Snodland
Kent
ME6 5AX

Variation application number
EPR/BJ7506IM/V004

Permit number
EPR/BJ7506IM/V004

Snodland Paper Mill CHP

Permit number EPR/BJ7506IM

Introductory note

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

The following notice gives notice of the variation and consolidation of an environmental permit.

This variation has been issued to consolidate the original permit and subsequent variations and to update some of the conditions following a statutory review of permits in the Paper & Pulp Sector. At the same time the permit has been converted into the current EPR Permit format.

The Schedules specify the changes made to the permit. The main features of the permit are as follows.

The installation is situated on the western bank of the River Medway; it is tidal at this point. Snodland is immediately to the west of the installation on the other side of a railway and main road. The remaining adjacent areas are rural. Holborough to Burham Marshes and Peters Pit Sites of Special Scientific Interest are within 2 km and Peters Pit and components of the North Downs Woodlands candidate Special Areas of Conservation are within 10 km.

The facility is wholly enclosed within the installation boundary of the Snodland Paper Mill and comprises a combined heat and power plant made up of a gas turbine, a heat recovery steam generator (HRSG) with supplementary and auxiliary firing, a steam turbine, water treatment plant and ancillary plant and storage facilities together with standby boiler plant comprising 5 standby boilers. The gas turbine is normally gas-fired but can operate for limited periods on gas oil as standby fuel.

The combined heat and power plant can provide up to 18 megawatts of electricity and 115 megawatts (147 tonnes) of steam to the paper mill and up to 35 megawatts surplus electricity for export to the grid. The steam turbine provides up to 12 megawatts of electricity.

Releases to air are via a 55 metre stack, or a 20 metre bypass stack in abnormal conditions. Releases of the main pollutants, oxides of nitrogen and carbon monoxide, are continuously monitored.

Releases to water comprise boiler blowdown and water treatment effluent that are discharged to Mill Creek Dam. During flood conditions Mill Creek Dam may overflow into the River Medway. Cooling water is drawn from the River Medway and returned to either the River Medway or Mill Creek Dam depending on the water level in Mill Creek Dam and the salinity of the river water. These discharges are subsequently re-used within the paper mill as raw water feed.

There are four gas fired standby boilers each of which can raise 23 tonnes of steam. Releases to air are via a 39.6 metre dual flue stack (boilers 8 and 12), a 37 metre common stack (boilers 9 and 10).

The CHP operates an Environmental Management System in accordance to the requirements and principles of ISO14001.

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 BJ7506 (EPR ref EPR/BJ7506IM/A001)	Received 28/02/01	
Response to request for information	Request dated 23/07/01	Response dated August 2001
Permit BJ7506 determined (EPR ref EPR/BJ7506IM)	22/01/03	
Variation KP3835SN determined (EPR ref EPR/BJ7506IM/V002)	26/11/04	An Agency initiated Variation to introduce monitoring and reporting requirements for large combustion plant required for compliance with the revised Large Combustion Plants Directive [Directive 2001/80/EC].
Variation notice GP3336LR determined (EPR ref EPR/BJ7506IM/V003)	01/03/07	An Agency initiated variation. Operators requested that permitted period for use of distillate oil was extended.
Environment Agency Paper and Pulp Sector Review 2011. Variation EPR/BJ7506IM/V004 determined Permit EPR/BJ7506IM	03/02/12	Varied and consolidated permit issued in modern condition format.

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Smurfit Kappa UK Limited	EPR/BJ7433IQ	22/01/03

End of Introductory note.

Notice of variation and consolidation

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/BJ7506IM

issued to:
SSE Generation Limited (“the operator”)

whose registered office is

55 Vastern Road
Reading
Berkshire
RG1 8BU

company registration number 2310571

to operate part of a regulated facility at

Snodland Paper Mill
Mill Street
Snodland
ME6 5AX

to the extent set out in the schedules.

The notice shall take effect from 03/02/2012

Name	Date
Team Leader	03/02/2012

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//BJ7506IM

This is the consolidated permit referred to in the variation and consolidation notice for Environment Agency initiated variation EPR/BJ7506IM/V004 authorising,

SSE Generation Limited (“the operator”),

whose registered office is

55 Vastern Road
Reading
Berkshire
RG1 8BU

company registration number 2310571

to operate part of an installation at

Snodland Paper Mill CHP
Mill Street
Snodland
Kent
ME6 5AX

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

Name	Date
Team Leader	03/02/2012

Authorised on behalf of the Environment Agency

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) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

1.2.2 The operator shall review the opportunities for the further use of waste heat at least every 2 years. The results shall be reported to the Agency within 2 months of each review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.5 Multiple operator installations

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 (a) 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.
- (b) 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 specified in schedule 1, table S1.2 or otherwise required under this permit, 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.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 From 1 January 2008 the following conditions apply where there is a malfunction or breakdown of any abatement equipment:
- 2.3.3.1 The Operator shall notify the Environment Agency within 48 hours of any such malfunction or breakdown unless notification has already been made under condition 4.3.1.
- 2.3.3.2 Unless otherwise agreed in writing by the Environment Agency:
- (a) if a return to normal operations is not achieved within 24 hours, the operator shall reduce or close down operations, or shall operate the activities using low polluting fuels; and
- (b) the cumulative duration of unabated operation in any 12-month period shall not exceed 120 hours.
- 2.3.4 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.
- 2.3.5 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.
- 2.3.6 The operator may utilise distillate fuel in the gas turbine and HRSG for a cumulative period not exceeding 2904 hours in any calendar year without prior notification to the Agency.
- 2.3.7 The duration of start up and shut-down periods shall be as short as possible.
- 2.3.8 The operator shall have in place means to prevent significant overflow discharge from Mill Creek into the River Medway whenever the temperature of the overflow is equal to, or exceeds 25°C.
- 2.3.9 In calculating the gas turbine and HRSG's contribution to the permitted operating hours Table S1.4 will be used. The use of the gas turbine and HRSG at below 30% load factor is excluded from the cumulative total.
- 2.3.10 The Operator shall have in place equipment to monitor and record the time and duration of all periods when distillate fuel is used in the gas turbine. These records shall be maintained and made available for inspection by the Agency at any reasonable time.

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 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1, S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 3.1.4 Emission Point A2 may only be used during periods of;
- (a) Gas Turbine Start-up;
 - (b) Gas Turbine Shut-down;
 - (c) where connection to the Regional Electrical Company is interrupted (Island Mode);
 - (d) emergency shut down of the HRSG;
 - (e) to provide power to the National Grid at time of high demand and when the HRSG is out of service.

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;
 - (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;
 - (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;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

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

- (a) point source emissions specified in tables S3.1 and S3.2;
- (b) process monitoring specified in table S3.4;

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 continual), 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 unless otherwise agreed in writing by the Environment Agency.

3.6 Monitoring for the purposes of the Large Combustion Plant Directive

3.6.1 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.

3.6.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in schedule 3, 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 measures.
- 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.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

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

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- (d) Where condition 2.3.6 applies the hours of operation in any year shall be reported to the Environment Agency by 31 January in the following year.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:
- (a) 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;
 - (b) the breach of a limit specified in the permit; or
 - (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 5 to this permit within the time period specified in that schedule.
- 4.3.3 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:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- 4.3.4 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 From 1 January 2008 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 “without delay”, 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. Operation of combined heat and power (CHP), producing steam and electricity by a gas turbine, HRSG, steam turbine, 4 auxiliary boilers (23MWth each), air cooled dump condenser, emergency diesel generator.	Production of power for use on the site, at the paper mill and export to the National Grid. Production of Steam for use at the paper mill.
Directly Associated Activity			
A2	Oil storage	Storage of standby fuel for when gas is not available.	Includes receipt of fuels.
A3	Surface water drainage	Discharge of site drainage via oil interception.	Drainage system until discharge to Mill Creek.
A4	Water treatment	Treatment of abstracted water from Mill Creek for use at the Installation.	Ion exchange softening and addition of boiler water chemicals.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.3 given in Part B, 3 Activities and Abatement of the application.	28/02/01
Response to Schedule 4 Part 1 Notice	Response to question 2.	August 2001
Response to IC 9.4	The response to IC9.4 defining Start Up and Shut Down and limited operation of the HRSG Bypass Stack.	2 September 2004

Table S1.3 Improvement programme requirements

Reference	Requirement	Date

Table S1.4 GT/HRSG load factor vs. equivalent hours

Average load factor for gas turbine and HRSG per hour	Equivalent number of hours
30 – 50 %	0.5
50 – 100 %	1.0

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
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Schedule 3 – 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 S3.1 the validated hourly, 48 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.
- The 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%.
- The 95% confidence interval for dust releases of a single measured result shall be taken to be 30%.
- 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 S3.1 Point source emissions to air

Emission point ref. & location	Parameter	Source	Limit (incl. 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 ref. no. 14-00-V-00494/A]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Gas turbine and HRSG fired on natural gas	105 mg/m ³	95% of 48 hour mean values	Continuous	BS EN 14181
			115 mg/m ³	Maximum 48 hour mean		BS EN 15267-3
			157 mg/m ³	Maximum 2 Hourly Mean		
	Carbon Monoxide	Gas turbine and HRSG fired on natural gas	150 mg/m ³	95% of 48 hour mean values	Continuous	BS EN 14181
			165 mg/m ³	Maximum 48 hour mean		BS EN 15267-3
			225 mg/m ³	Maximum 2 Hourly Mean		

Table S3.1 Point source emissions to air

Emission point ref. & location	Parameter	Source	Limit (incl. 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 ref. no. 14-00-V-00494/A]	Oxides of Nitrogen (NO and NO ₂) expressed as NO ₂)	Gas turbine and HRSG fired on gas oil	180 mg/m ³	95% of 48 hour mean values	Continuous	BS EN 14181	
			198 mg/m ³	Maximum 48 hour mean			BS EN 15267-3
			270 mg/m ³	Maximum 2 Hour Mean			
	Carbon Monoxide	Gas turbine and HRSG fired on gas oil	200 mg/m ³	95% of 48 hour mean values	Continuous	BS EN 14181	
			220 mg/m ³	Maximum 48 hour mean			BS EN 15267-3
			300 mg/m ³	Maximum 2 Hour Mean			
	Sulphur Dioxide (SO ₂)	Gas turbine and HRSG	None Specified	n/a	Continuous	As Agreed In Writing with the Environment Agency	
	Particulates	Gas turbine and HRSG	None Specified	n/a	Continuous	As Agreed In Writing with the Environment Agency	
	A2 [Point A2 on site plan ref. no. 14-00-V-00494/A]	None Specified	Gas Turbine (HRSG By-pass Stack)	None Set	None Set	None Set	None Set
	A3 [Point A3 on site plan ref. no. 14-00-V-00494/A]	Oxides of Nitrogen (NO and NO ₂) expressed as NO ₂)	Standby Boilers 12 and 8 fired on Gas	350 mg/m ³	Mean value over minimum 30 minute period, maximum 8 hrs	Annual spot measurement, during operational periods	BS EN 14792
Carbon Monoxide		Standby Boilers 12 and 8 fired on Gas	150 mg/m ³	Mean value over minimum 30 minute period, maximum 8 hrs	Annual spot measurement, during operational periods	BS EN 15058	

Table S3.1 Point source emissions to air

Emission point ref. & location	Parameter	Source	Limit (incl. unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A4 [Point A4 on site plan ref. no. 14-00-V-00494/A]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Standby Boilers 9 and 10 fired on Gas	350 mg/m ³	Mean value over minimum 30 minute period, maximum 8 hrs	Annual spot measurement, during operational periods	BS EN 14792
A4 [Point A4 on site plan ref. no. 14-00-V-00494/A]	Carbon Monoxide	Standby Boilers 9 and 10 fired on Gas	150 mg/m ³	Mean value over minimum 30 minute period, maximum 8 hrs	Annual spot measurement, during operational periods	BS EN 15058

For certain parameters, certification to the MCERTS performance standards indicates compliance with BS EN 15267-3.

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
W4 on site plan 14-00-V-00494/A emission to Mill Creek	Flow	Water Treatment Plant waste water	500 m ³	24 Hours	Continuous	MCERTS self-monitoring of effluent flow scheme
	pH		6-9	Instantaneous	Continuous	MCERTS
	Mercury		None Set	n/a	Quarterly	Mass Balance Calculation
W5 on site plan 14-00-V-00494/A emission to Mill Creek	Flow	Auxiliary cooling water alternative discharge	20 000 m ³ (Note 1)	24 Hours	Continuous	MCERTS self-monitoring of effluent flow scheme
	Temperature	Auxiliary cooling water alternative discharge	35 ^o C	Instantaneous	Continuous	Standard Temperature Sensor
W6 on site plan 14-00-V-00494/A emission to Mill Creek	Temperature	Standby plant boiler blowdown drum discharge	35 ^o C	Instantaneous	Continuous	Standard Temperature Sensor

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
	pH	Standby plant boiler blowdown drum discharge	6-9	Instantaneous	Continuous	MCERTS
	Mercury	Standby plant boiler blowdown drum discharge	None Set	n/a	Quarterly	Mass Balance Calculation
W7 on site plan 14-00-V-00494/A emission to Mill Creek	None Specified	Auxiliary cooling water heat exchanger 1 purge	n/a	n/a	n/a	n/a
W8 on site plan 14-00-V-00494/A emission to Mill Creek	None Specified	Auxiliary cooling water heat exchanger 2 purge	n/a	n/a	n/a	n/a
W9 on site plan 14-00-V-00494/A emission to River Medway	Flow	Auxiliary cooling water return	20 000 m ³ (Note 1)	24 Hours	Continuous	MCERTS self-monitoring of effluent flow scheme
	Temperature	Auxiliary cooling water return	< 8 ⁰ C above river temperature	Instantaneous	Continuous	Standard Temperature Sensor

Note 1- Total flow for W5 and W9 together

Note 2 – Compliance is achieved where no more than one 5 minute period exceeds the ELV during any 24 Hour period

Table S3.3 Annual limits

Substance	Medium	Limit (including unit)	Emission Points
Mercury	Water	0.02 kg	W4 & W6

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
A1	Exhaust Gas Oxygen content	Continuous	BS EN 15267 - 3	

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
	Exhaust gas moisture content	Continuous	BS EN 15267 - 3	Unless gas is dried before analysis of emissions
	Exhaust Gas Temperature	Continuous	Traceable to National Standards	
	Exhaust Gas Pressure	Continuous	Traceable to National Standards	
A3, A4, A5	Oxygen Temperature Pressure	During periodic monitoring in table S3.1	MCERTS	
Outlet from Mill Creek to the River Medway	Temperature	Continuous	Standard Temperature Sensor	
River Medway	Temperature	Continuous	Standard Temperature Sensor	
Natural Gas	Flow	Continuous	As agreed in writing with the Environment Agency	

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
Emissions to Air – Continuous Monitoring Parameters as required by condition 3.5.1	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to Air – Periodic Monitoring Parameters as required by condition 3.5.1	A3, A4, A5	Every 12 months	1 January
Emissions to Water Parameters as required by condition 3.5.1	W4, W5, W6, W9	Every 3 months	1 January, 1 April, 1 July, 1 October
Mass release of mercury	W4 & W6	Every 12 months	1 January
Performance Parameters	Installation	Every 12 months	1 January

Table S4.2 Annual production/treatment

Parameter	Units
Power generated – exported to Mill	GWHrs
Power Generated – exported to Grid	GWHrs
Steam Generated – exported to mill	GWHrs
Steam Generated	GWHrs

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Steam Condensed	Monthly	Tonnes
Steam Vented	Monthly	Tonnes
Operating Modes	Monthly	%

Table S4.4 Reporting forms

Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air	Form Air 1 – Continuous monitoring from Gas Turbine	27/11/2004	SI	03/02/12
	Form Air 2 – Discontinuous Monitoring from Standby Boilers	27/11/2004	SI	03/02/12
	Form Air – 3 LCPD continuous measurement systems invalidation log or other form as agreed in writing by the Environment Agency	27/11/2004	SI	03/02/12
	Form Air – 4 LCPD monthly and cumulative releases	27/11/2004	SI	03/02/12

Table S4.4 Reporting forms

Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
	Form Air –5 Annual mass emission releases	27/11/2004	SI	03/02/12
Water and Land	Form Water 1 or other form as agreed in writing by the Environment Agency	Permit issue	SI	03/02/12
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Environment Agency	Permit issue	SI	03/02/12
Standby Boiler Plant Running	Form Standby 1	Permit issue	SI	03/02/12

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	BJ7506IM
Name of operator	SSE Ltd
Location of Facility	Snodland Paper Mill CHP
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.

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

“*CEN*” means Comité Européen de Normalisation.

“*DLN*” means dry, low NO_x burners.

“*emissions to land*” includes emissions to groundwater.

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

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

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

“*HRSG*” means Heat Recovery Steam Generator.

“*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_{th} 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% 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.

“SI” means site inspector.

“start up” means any period when the Gas Turbine has been non-operational, starting with the firing of the Gas Turbine and ending when the Gas Turbine is loaded to 32 MWe and Steam Injection has commenced.

“shut down” means any period where the Gas Turbine is being returned to a non-operational state, starting with taking the Steam Turbine out of Service.

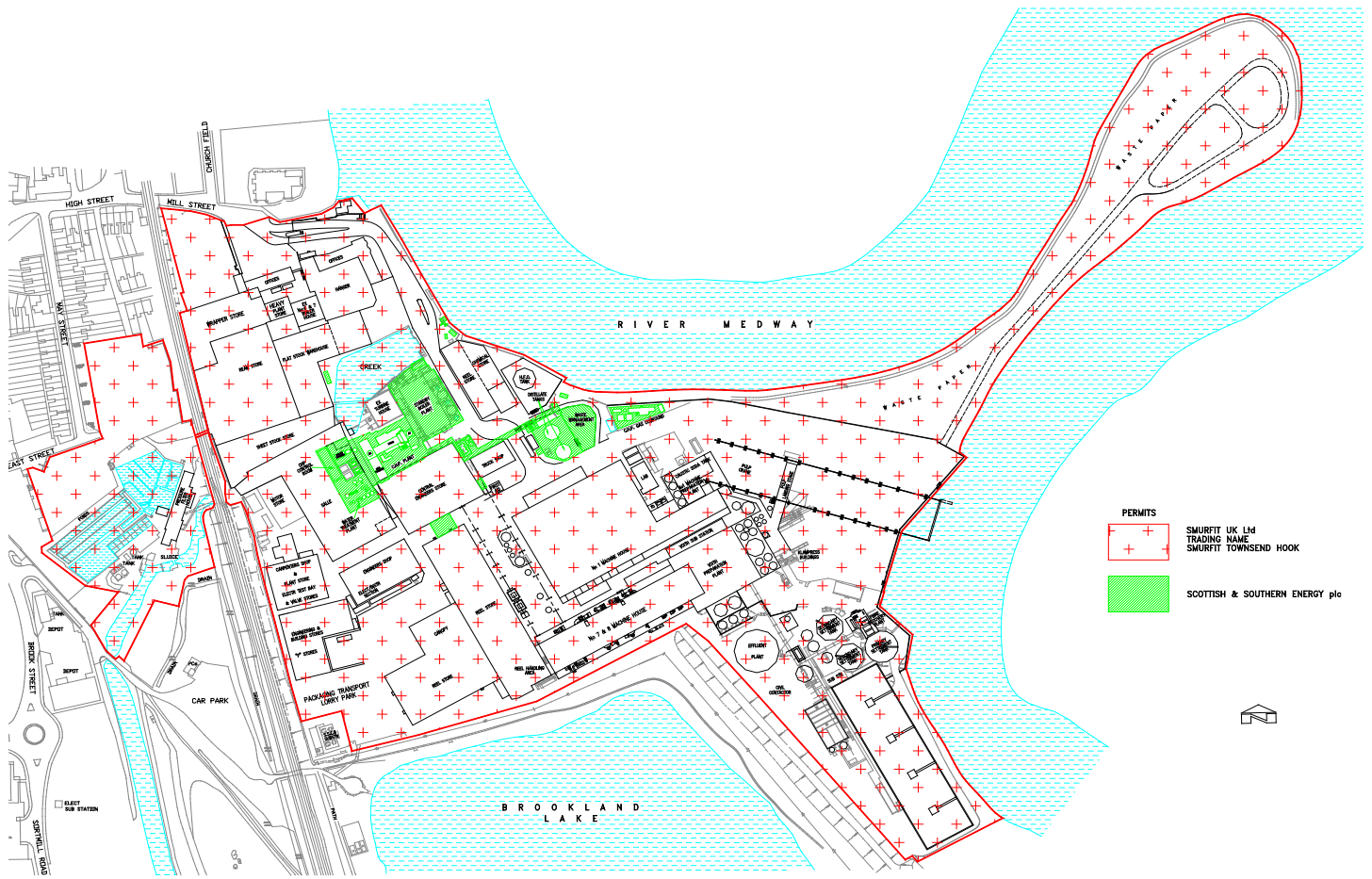
“year” means calendar year ending 31 December.

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:

- (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; and/or
- (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 and/or;
- (c) in relation to gases from gas turbines, the concentration in dry air at temperature of 273k, at a pressure of 101.3kPa and with an oxygen content of 15% dry.

Schedule 7 - Site plan



END OF PERMIT.

Permit Number: EPR/BJ7506IM Operator: SSE Generation Limited
 Facility: Snodland Paper Mill CHP Form Number: Air 1 / 03/02/12

LCP CONTINUOUS MONITORING FOR THE 3 MONTHS TO..... 20 ...

Emission Point	Parameter	Emission Limit Value	Month	Period on fuel ⁽¹⁾	Calendar monthly mean	95%ile of 48 hour means	Maximum 48 hour mean	Maximum 2 hour mean
A1 (Gas Fired)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)							
	Carbon monoxide							
A1 (Oil Fired)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)							
	Carbon monoxide							

(1) Oil Fired Only - From when fuel type commenced DD/MM/YY HH:MM to when fuel ceased to be used DD/MM/YY HH:MM.

Signed
 (Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP Form Number: Air 2 / 03/02/12

LCP Discontinuous Measurement for the 6 months to20..

Parameter		Emission Limit Value	Result ⁽¹⁾	Test Method ⁽²⁾	Sample Date and Times ⁽³⁾	Uncertainty ⁽⁴⁾
Emission Point						
A3 (Boiler 8)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)					
	Carbon Monoxide					
A3 (Boiler 12)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)					
	Carbon Monoxide					
A4 (Boiler 9)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)					
	Carbon Monoxide					
A4 (Boiler 10)	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)					
	Carbon Monoxide					

(1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

(2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

(3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

(4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of SSE Generation Ltd)

Permit Number: EPR/BJ7506IM

Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP

Form Number: Air 3 / 03/02/12

LCPD CONTINUOUS MEASUREMENTS SYSTEMS INVALIDATION LOG FOR THE YEAR 20 ...

Monitor positioned on release point/boiler: A1

Date	Period of invalidation (hours)	Cumulative invalidated days in year	Comments

Note: Compliance in LCPD is on the basis of validated hourly averages, measured by continuous monitors (except where discontinuous exemption applies). And confidence intervals are incorporated to convert the measured hourly value into a validated measurement for the purpose of compliance assessment. However, any day in which more than 3 hourly average values are invalid (due to malfunction or maintenance of the continuous measurement system) shall be invalidated for the purpose of compliance assessment. Then, if more than 10 days are invalid over a year the Environment Agency must ensure that the operator takes adequate measures to improve the continuous measurement system reliability. This table is a reporting form for the operator's use to alert the Environment Agency that action may be required.

Signed
(Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP Form Number: Air 4 / 03/02/12

LCPD MONTHLY AND CUMULATIVE RELEASES¹ FROM EACH LCP FOR THE YEAR 20 ...

Reporting period	LCP (Number 1)					
	SO ₂ released		NO _x released		Particulate matter released	
	Actual (tonnes)	Cumulative year to date (tonnes)	Actual (tonnes)	Cumulative year to date (tonnes)	Actual (tonnes)	Cumulative year to date (tonnes)
01 (Jan)						
02 (Feb)						
03 (Mar)						
04 (Apr)						
05 (May)						
06 (Jun)						
07 (Jul)						
08 (Aug)						
09 (Sep)						
10 (Oct)						
11 (Nov)						
12 (Dec)						

¹ Excluding start-up and shut-down

Operator comments:

Signed
 (Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM

Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP

Form Number: Air 5 / 03/02/12

ANNUAL MASS EMISSIONS ¹ FOR THE YEAR 20 ...

Pollutant	Emission (tonnes)				
	A1				Total
SO ₂					
NO _x					
Particulate matter					
CO					

¹ Including start-up and shut-down

Operator comments:

Signed
(Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM

Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP

Form Number: Standby 1 / 03/02/12

STANDBY PLANT OPERATING HOURS SUMMARY FOR THE YEAR 20..

Month	Running Hours				
	Boiler 8	Boiler 9	Boiler 10	Boiler 12	
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Total					

Signed
(Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM

Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP

Form Number: Water1 / 03/02/12

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
W4	Flow	500m ³	24 Hours		MCERTS self-monitoring of effluent flow scheme		
W6	Flow	75m ³	24 Hours		MCERTS self-monitoring of effluent flow scheme		
W5	Flow	38000m ³	24 Hours		MCERTS self-monitoring of effluent flow scheme		
W9	Flow				MCERTS self-monitoring of effluent flow scheme		
W4	pH (Min)	6	Instantaneous		MCERTS		
W4	pH (Max)	9	Instantaneous		MCERTS		
W6	pH (Min)	6	Instantaneous		MCERTS		
W6	pH (Max)	9	Instantaneous		MCERTS		
W5	Temperature	35°C	Instantaneous		Standard Temperature Sensor		
W6	Temperature	35°C	Instantaneous		Standard Temperature Sensor		

Emission							
Emission Point	Substance / Parameter	Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
W9	Temperature	< 8°C above river temperature	Instantaneous		Standard Temperature Sensor		
W4	Mercury	0.02 kg	365 Days		Mass Balance Calculation	n/a	
W5	Mercury						

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
 (Authorised to sign as representative of SSE Generation Ltd)

Date.....

Permit Number: EPR/BJ7506IM

Operator: SSE Generation Limited

Facility: Snodland Paper Mill CHP

Form Number: Performance1 / 03/02/12

Reporting of other performance indicators / Annual Production for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
Turbine Exhaust Gas (TEG)	%
Supplementary Firing	%
Auxillary Firing (FD)	%
Open Cycle	%
Power generated – exported to Mill	GWHrs
Power Generated – exported to Grid	GWHrs
Steam Generated – exported to mill	GWHrs
Steam Generated	GWHrs

Operator's comments :

Signed
(Authorised to sign as representative of SSE Generation Ltd)

Date.....