

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

ScottishPower Generation Limited

Damhead Creek Power Station

Kingsnorth

Hoo St Werburgh

Rochester

Kent

ME3 9TX

Variation application number

EPR/DP3933DN/V002

Permit number

EPR/DP3933DN

Damhead Creek Power Station

Permit number EPR/DP3933DN

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

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

This variation authorises changes to the permit to include an additional 1,800 megawatt electrical (MWe) combined cycle gas turbine (CCGT) power plant. The new power plant, Damhead Creek 2 Power Station (DHC2) will be located adjacent to the existing Damhead Creek 1 Power Station (DHC1). The new power plant will be centred approximately on National Grid Reference TQ 81249 72830.

DHC2 consists of three 600 MWe CCGTs (thermal input of 1,093 MWth each). The plant will combust natural gas only and there will be no standby fuel. Each CCGT comprises a gas turbine, heat recovery steam generator (HRSG) and steam turbine in a single shaft configuration. The gas turbine drives an electrical generator to generate electricity. The hot exhaust gases exiting the gas turbine are passed to the HRSG which rotates the steam turbine connected to another electrical generator to generate additional electricity. Spent steam is condensed (via air cooled condensers) and the resultant condensate returned to the HRSG for reuse. The exhaust gases leave the HRSG via a dedicated 75 metre stack for each CCGT.

A 23.1 MWth gas fired auxiliary boiler provides steam to enable the start up of the steam turbines and has its own dedicated 45 metre stack. In addition, there is a 2.8 MWth emergency diesel generator which enables safe shut down of the plant and a 0.8 MWth diesel firefighting pump onsite.

Natural gas is supplied by the National Transmission System (NTS) via the existing gas pipeline connecting DHC1 to the NTS. Electricity is exported via a new underground cable to the existing Kingsnorth substation to the south of DHC2.

Process effluent consists of boiler blowdown, water treatment plant effluent and surface water runoff. All process effluents will drain to a water conditioning basin prior to a new discharge point, W2, into Damhead Creek. The maximum discharge from DHC2 will be 90 cubic metres per hour.

The cooling system consists of air cooled condensers in a closed looped system. As DHC2 does not have a cooling tower there will be no visible plume.

A combined heat and power ready (CHP-ready) assessment identified that at present there are no suitable heat customers and no suitable future developments are currently proposed. However, the layout of DHC2 has been arranged to allow space to be available for heat extraction to be undertaken in the future.

The plant has an overall efficiency of over 60% and will be operated in different modes including:

- base load – operating at full capacity;
- two shift mode – operation during the day with overnight shut down.

Emissions of nitrogen oxides (NO_x) and carbon monoxide (CO) will comply with the Industrial Emissions Directive (IED), 2010/75/EU, Annex V emissions limit values (ELVs).

This variation also authorises the increase to the existing DHC1 discharge at emission point W1 from 30 m³ per hour to 60 m³ per hour to allow for effective management of storm water.

The rest of the installation remains unchanged.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application received EPR/VP3133LP/A001	Duly made 31/03/2006	
Submission of site plan for permit	31/01/2007	
Submission of additional air dispersion modelling results (final version C)	05/02/2007	
Submission of revised EP OPRA spreadsheet	05/02/2007	
Submission of revised H1 assessment and clarification of emissions to water data	05/02/2007	
Submission of EMAS certificate of registration and results of sampling undertaken 5/2/07 for emissions to water	16/02/2007	
Permit determined EPR/VP3133LP	28/03/2007	
Variation application determined EPR/VP3133LP/V002	11/03/2013	Environment Agency initiated variation to incorporate Eel Regulations improvement condition.
Transfer application EPR/NP3634WE/T001	Duly made 06/11/2014	Full transfer of permit EPR/VP3133LP from ScottishPower Damhead Creek Operations Ltd to ScottishPower (DCL) Ltd.
Transfer application determined EPR/NP3634WE	27/11/2014	Full transfer of permit complete.
Regulation 60 Notice sent to the Operator	09/12/2014	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	30/03/2015	Response received from the Operator.
Additional information received	15/06/2015	Response to request for further information (RFI) dated 29/05/2015.
Variation determined EPR/DP3933DN/V002 (Billing ref: NP3234AT)	22/12/15	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.
Transfer application EPR/DP3933DN/V002 (full transfer of permit EPR/NP3634WE)	Duly made 31/03/2016	Application to transfer the permit in full to ScottishPower Generation Limited.
Transfer determined EPR/DP3933DN	17/05/2016	Full transfer of permit complete.
Variation application EPR/DP3933DN/V002	Duly made 09/11/2016	Application to vary the permit to add a 1,800 megawatt electrical (MWe) combined cycle gas turbine (CCGT) power plant and increase the W1

Status log of the permit		
Description	Date	Comments
		discharge volume and add a new emission point W2.
Additional information received	17/11/2016	Site location plan, installation boundary plan, proposed layout plan, raw material plan, process flow diagram, emissions plan and drainage plan.
Response to schedule 5 notice received	30/11/2016	Baseline noise assessment from DHC2 S36 2009 application.
Additional information received	20/06/2017	Revised installation boundary plan with emission points
Variation determined EPR/DP3933DN (Billing ref: UP3934DT)	30/06/2017	Varied permit issued.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/DP3933DN

Issued to

ScottishPower Generation Limited (“the operator”)

whose registered office is

**320 St. Vincent Street
Glasgow
Scotland
G2 5AD**

company registration number SC189124

to operate an installation at

**Damhead Creek Power Station
Kingsnorth
Hoo St Werburgh
Rochester
Kent
ME3 9TX**

to the extent set out in the schedules.

The notice shall take effect from 30/06/2017.

Name	Date
C G Morris	30/06/2017

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/DP3933DN

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/DP3933DN/V002 authorising,

ScottishPower Generation Limited (“the operator”)

whose registered office is

**320 St. Vincent Street
Glasgow
Scotland
G2 5AD**

company registration number SC189124

to operate an installation at

**Damhead Creek Power Station
Kingsnorth
Hoo St Werburgh
Rochester
Kent
ME3 9TX**

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

Name	Date
C G Morris	30/06/2017

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
- (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (d) take any further appropriate measures identified by a review.

1.2.2 The operator shall review the viability of Combined Heat and Power (CHP) implementation at least every 4 years, or in response to any of the following factors, whichever comes sooner:

- (a) new plans for significant developments within 15 km of the installation;
- (b) changes to the Local Plan;
- (c) changes to the DECC UK CHP Development Map or similar; and
- (d) new financial or fiscal incentives for CHP.

The results shall be reported to the Agency within 2 months of each review, including where there has been no change to the original assessment in respect of the above factors.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

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

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

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

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.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 For the following activities referenced in schedule 1, table S1.1: LCP81, LCP82, LCP467, LCP468 and LCP469. Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the “Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines” revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 For the following activities referenced in schedule 1, table S1.1: LCP81, LCP82, LCP467, LCP468 and LCP469. The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;

- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

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

2.4 Improvement programme

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

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

2.5 Pre-operational conditions

2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

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

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

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

- (a) point source emissions specified in tables S3.1 and S3.2.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continuous), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

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

3.6.1 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.6.7, the operator shall:

- (a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the Environment Agency for approval, proposals for measures to improve the reliability of the continuous measurement systems, including a timetable for the implementation of those measures; and
 - (b) implement the approved proposals.
- 3.6.2 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.
- 3.6.3 Continuous measurement systems on emission points from the LCP shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.6.4 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.6.5 below, the operator shall carry out the methods, including the reference measurement methods, to use and calibrate continuous measurement systems in accordance with the appropriate CEN standards.
- 3.6.5 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.
- 3.6.6 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.
- 3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3, table S3.1; the Continuous Emission Monitors shall be used such that:
 - (a) for the continuous measurement systems fitted to the LCP release points defined in Table S3.1 the validated hourly, monthly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval;
 - (b) the 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%;
 - (c) the 95% confidence interval for dust releases of a single measured result shall be taken to be 30%;
 - (d) the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
 - (e) an invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing; and
 - (f) any day, in which more than three hourly average values are invalid shall be invalidated.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;

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

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

4.2 Reporting

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

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the resource efficiency metrics set out in schedule 4 table S4.2;
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

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

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and

- (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
 - Where the operator is a registered company:
 - (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
 - Where the operator is a corporate body other than a registered company:
 - (c) any change in the operator's name or address; and
 - (d) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP 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.	Damhead Creek 1 LCP81 and LCP82: operation of a power plant made up of two combined cycle gas turbines (CCGT) each with a net rated thermal input of 711 MWth burning natural gas to produce electricity.	From receipt of natural gas to discharge of exhaust gases and the generation of electricity for export.
	Operation of an auxiliary boiler with a net rated thermal input of 12 MWth fired on natural gas.	From receipt of natural gas to discharge of exhaust gases and the generation of steam. Used during start up to heat gas and seal steam turbine glands.
	Operation of an emergency diesel generator with a net rated thermal input of 1.2 MWth.	From receipt, storage and handling diesel to discharge of exhaust gases. Used for emergency purposes when network is down and tested monthly.
	Damhead Creek 2 LCP467, LCP468 and LCP469: operation of a power plant made up of three combined cycle gas turbines (CCGT) each with a net rated thermal input of 1,093 MWth burning natural gas to produce electricity.	From receipt of natural gas to discharge of exhaust gases and the generation of electricity for export.
	Operation of an auxiliary boiler with a net rated thermal input of 23.1 MWth fired on natural gas.	From receipt of natural gas to discharge of exhaust gases and the generation of steam. Used during start up to heat gas and seal steam turbine glands.
	Operation of an emergency diesel generator with a net rated thermal input of 2.8 MWth.	From receipt, storage and handling diesel to discharge of exhaust gases. Used for emergency purposes when network is down and tested monthly.

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Directly Associated Activity		
Directly associated activity	Operation of four steam turbines	Input of steam from the heat recovery steam generators associated with the CCGTs into steam turbines for the generation of electricity for export to the National Grid.
Directly associated activity	Two air cooled condenser systems (ACC)	Rejection of waste steam to ACC and return of condensate to feedwater system.
Directly associated activity	Raw water storage tanks	From receipt of towns water to use for domestic supply, for cooling, in the water treatment plant and for fire mains.
Directly associated activity	Water treatment - treatment of water by reverse osmosis and ion exchange	From receipt of raw materials to despatch for use in HRSG, cooling systems and domestic heating system. Transfer of effluent to neutralisation tank for pH adjustment.
Directly associated activity	Plant drainage system and effluent neutralisation and storage. Sumps and drains in process areas and site surface water drainage. Storm water storage basin and pumping system and pipeline to discharge point for Damhead Creek 1 and Damhead Creek 2.	From transfer of wastewater effluent streams (neutralisation tank effluent, treated sewage effluent, rainwater and surface water via interceptors and oily separator effluent) to storm water basin prior to discharge to Damhead Creek 1, emission point W1 and Damhead Creek 2, emission point W2.
Directly associated activity	Fuel oil storage for use in emergency generators.	From receipt of raw materials to dispatch for use.
Directly associated activity	Gas feeder pipeline including slam shut valve.	From receipt of raw materials to dispatch for use.
Directly associated activity	Waste handling and storage.	From waste generation, storage and monitoring to waste dispatch.
Directly associated activity	Operation of two 0.8 MWth back up diesel fired fire water pumps.	From receipt, storage and handling of diesel to discharge of exhaust gases.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application received EPR/VP3133LP/A001	The response to questions B2.1 and B2.2 provided in Section 2 of the application.	31/03/2006
Response to regulation 60(1) Notice – request for information dated 9/12/2014	Compliance route) and operating techniques identified in response to questions 2 (ELV compliance route) and 6 (MSUL/MSDL definitions).	30/03/2015

Table S1.2 Operating techniques		
Description	Parts	Date Received
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 29/05/2015	Operating techniques identified in response to questions 2 (thermal input), 3 (MSUL/MSDL definitions).	15/06/2015
Variation application EPR/DP3933DN/V002	The responses to Parts C2 and C3 and the supplementary information supplied with these parts.	9/11/2016
Additional information received variation EPR/DP3933DN/V002	Site location plan, installation boundary plan, proposed layout plan, raw material plan, process flow diagram, emissions plan and drainage plan.	17/11/2016
Schedule 5 notice response variation EPR/DP3933DN/V002	Baseline noise assessment from DHC2 S36 2009 application.	30/11/2016

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>A written plan shall be submitted to the Agency for approval detailing measures to be taken that ensure the methods and equipment used for monitoring emissions to surface water meet the requirements of the Environment Agency Guidance M18 where appropriate. The plan shall include but not be limited to:</p> <ul style="list-style-type: none"> • proposed monitoring methods, both periodic and continuous • frequency of monitoring • equipment to be used for monitoring emissions • a timetable for implementation of the improvements <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the operator from the date of approval in writing by the Agency.</p>	Completed
IC2	The Operator shall submit in writing, details of the method for the determination of sulphur dioxide and particulate matter from emission points A1 and A2 including details of the verification of the suitability of such a method.	Completed
IC3	<p>A written report shall be submitted to the Agency detailing the review of the performance testing on the Mitsubishi 701F gas turbines. The report shall include but not be limited to:</p> <ul style="list-style-type: none"> • The results of all the tests carried out as outlined in section 3.0 of the report submitted to the Environment Agency on 30/6/06 to comply with improvement condition 8.9 of variation CA0891 • An assessment of the ability of the Mitsubishi 701F gas turbines to run consistently below 50 mg/m³ NOX emissions when the impact of the LNG is taken into consideration. 	Completed

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC4	<p>The Operator shall undertake an assessment of the existing incident response manual against section 2.8 of the IPPC Sector Guidance Note Combustion Activities to identify and address any deficiencies. The assessment shall include but not be limited to:</p> <ul style="list-style-type: none"> • identification of hazards listed in the Guidance Note • an assessment of the risks for each hazard identified in line with the Guidance note • identification of techniques necessary to reduce the risks associated with each hazard identified • consideration of flood risk issues <p>A written report of the assessment, including a plan for corrective actions, timescales and revisions to the current incident response manual shall be submitted to the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p> <p>The corrective action plan shall be implemented from the date of approval by the Agency.</p>	Completed
IC5	<p>An energy efficiency plan shall be submitted to the Agency for approval in accordance with section 2.7 of the IPPC Sector Guidance Note Combustion Activities. The plan shall include but not be limited to:</p> <ul style="list-style-type: none"> • revision of the existing monitoring plan to include the requirement to monitor energy flows • review of energy use and identification of areas of energy wastage • identification of areas for energy use reduction • production of an energy management policy which includes targets and performance indicators in accordance with the overall aims and policies of the installation • identification of staff training and education required and timetable for implementation • frequency of review periods. <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The plan shall be implemented from the date of approval by the Agency.</p>	Completed
IC6	<p>A written report shall be submitted to the Agency detailing the review of possible measures for noise reduction from the roof fans located on the turbine and HRSG roof building. The report shall include but not be limited to:</p> <ul style="list-style-type: none"> • identification of noise reduction measures • the potential benefit following implementation of the measures identified • a plan for the implementation of the measures including timescales for completion of actions with justification for these. <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The plan shall be implemented from the date of approval in writing by the Agency.</p>	Completed

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC7	<p>A water efficiency audit shall be submitted to the Agency in accordance with section 2.4.2 of the IPPC Sector Guidance Note Combustion Activities. The audit shall include but not be limited to:</p> <ul style="list-style-type: none"> • methodology used • review of water mass balances for the installation • establishment of water quality requirements associated with each use • exploration of opportunities and techniques for water re-use • installation specific water efficiency objectives <p>The audit shall contain a plan including timescales for the implementation of individual improvement measures.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the audit.</p> <p>The plan shall be implemented from the date of approval in writing by the Agency.</p>	Completed
IC8	<p>The Operator shall produce a written site closure plan in line with the requirements of section 2.11 of the IPPC Sector Guidance Note Combustion Activities. A copy of the site closure plan shall be submitted to the Agency for approval.</p>	Completed
IC9	<p>The Operator shall undertake a review of the existing screening measures at the intakes and outfalls which provide and discharge water to and from the Installation. The review shall be undertaken with reference to the Eels (England and Wales) Regulations 2009 (SI 2009/3344) and the Environment Agency "Safe Passage of Eel" Regulatory Position Statement version 1 dated July 2012.</p> <p>The Operator shall submit details of the arrangement suitable to meet the requirements for the safe passage of eels [of the Eels (England and Wales) Regulations 2009 (SI 2009/3344)] by either:-</p> <ul style="list-style-type: none"> • Providing a written proposal for the installation of an eel screen. • Providing a written proposal to the modification of existing screening arrangements. • Providing a written response with an explanation and description of how the existing screening arrangements can be regarded to meet the requirements for the safe passage of eels [of SI 2009/3344] either without change or with mitigation measures. • Providing a written response setting out a case for an exemption <p>In all cases, the proposal shall be submitted in writing for the approval of the Environment Agency. Where appropriate, each proposal shall contain an assessment of alternative options considered including impacts on other fish species and an explanation of why the proposed option has been chosen.</p> <p>Where installation of eel screen; modification of existing arrangements; or mitigation measures are proposed, the submission shall contain relevant timescales for installation in accordance with the Safe Passage of Eel Regulatory Position Statement version 1 dated July 2012.</p> <p>The proposals shall be implemented in accordance with the Environment Agency's written approval.</p>	Completed

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC10	For LCPD LCP 137 and LCP 138 (now LCP 81 and LCP 82 under IED). Annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LCPD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry	Complete
IC11	<p>The Operator shall submit a report in writing to the Environment Agency for acceptance. The report shall define and provide a written justification of the “minimum start up load” and “minimum shut-down load”, for each unit within the LCP, at Damhead Creek 2 Power Station, as required by the Implementing Decision 2012/249/EU in terms of:</p> <ul style="list-style-type: none"> i. The output load (i.e. electricity, heat or power generated) (MW); and ii. This output load as a percentage of the rated thermal output of the combustion plant (%). <p>And / Or</p> <p>At least three criteria (operational parameters and / or discrete processes as detailed in the Annex) or equivalent operational parameters that suit the technical characteristics of the plant, which can be met at the end of start up or start of shut down as detailed in Article (9) 2012/249/EU.</p>	Within 12 months of the date on which fuel is first burnt
IC12	<p>The Operator shall provide a report in writing to the Environment Agency for acceptance which provides the net rated thermal input for LCP467, LCP468 and LCP469.</p> <p>Evidence to support this figure, in order of preference, shall be in the form of:-</p> <ul style="list-style-type: none"> a) Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes); b) Manufacturer’s contractual guarantee value; c) Published reference data, e.g. Gas Turbine World Performance Specifications (published annually); d) Design data, e.g. nameplate rating of a boiler or design documentation for a burner system; e) Operational efficiency data as verified and used for heat accountancy purposes; f) Data provided as part of Due Diligence during acquisition. <p>* Performance test results shall be used if these are available.</p>	Within 12 months of the date on which fuel is first burnt
IC13	The Operator shall submit a written report to the Environment Agency on the commissioning of Damhead Creek 2 Power Station. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the completion of commissioning

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO1	Prior to the commencement of commissioning of Damhead Creek 2 Power Station, the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO2	<p>Prior to the commencement of commissioning of Damhead Creek 2 Power Station, the Operator shall prepare and submit a comprehensive noise assessment report undertaken by an experienced and suitably qualified person in accordance with the procedures given in BS4142:2014 (Methods for rating and assessing industrial and commercial sound). The assessment shall include the assessment of the predicted impact of noise emissions upon surrounding sensitive receptors arising from the operation of the powerstation against the relevant benchmarks for assessment set out in BS4142:2014.</p> <p>If the report does not demonstrate that there will be no adverse effect, the noise management and mitigation proposals must be amended accordingly and the noise assessment updated to reflect the changes.</p>

Table S1.5 Start-up and Shut-down thresholds		
Emission Point and Unit Reference	“Minimum Start-Up Load” Load in MWe and as percent of rated power output (%)	“Minimum Shut-Down Load” Load in MWe and as percent of rated power output (%)
A1: LCP 81	250 MWe; 62.5% - “part module” operation – single GT and ST	250 MWe; 62.5% - “part module” operation – single GT and ST
A2: LCP 82	250 MWe; 62.5% - “part module” operation – single GT and ST	250 MWe; 62.5% - “part module” operation – single GT and ST
A1: LCP 81 + A2: LCP 82	480 MWe; 59.6% - “full module” operation – two GTs and ST	480 MWe; 59.6% - “full module” operation – two GTs and ST
Emission points A9, A10 and A11 from LCP467, LCP468 and LCP469	To be agreed in writing by the Environment Agency, following the outcome of improvement condition IC11.	To be agreed in writing by the Environment Agency, following the outcome of improvement condition IC11.

Schedule 2 – Waste types, raw materials and fuels

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

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 and A2 [Points A1 and A2 on plan in Schedule 7]	LCP81 and LCP82 Gas turbine fired on natural gas	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	50 mg/m ³	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			55 mg/m ³	Daily mean of validated hourly averages		
			90 mg/m ³	95% of validated hourly averages within a calendar year		
		Carbon monoxide	80 mg/m ³	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			80 mg/m ³	Daily mean of validated hourly averages		
			120 mg/m ³	95% of validated hourly averages within a calendar year		
		Sulphur dioxide	No limit set	---	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
		Oxygen	---	---	Continuous as appropriate to reference	BS EN 14181

Table S3.1 Point source emissions to air						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
		Water vapour	---	---	Continuous as appropriate to reference	BS EN 14181
A1 and A2 [Points A1 and A2 on plan in Schedule 7]	LCP81 and LCP82 Gas turbine fired on natural gas	Stack gas temperature	---	---	Continuous as appropriate to reference	Traceable to national standards
		Stack gas pressure	---	---	Continuous as appropriate to reference	Traceable to national standards
		As required by the Method Implementation Document for BS EN 15259	---	---	Pre-operation and when there is a significant operational change	BS EN 15259
A4 [Point A4 on plan in Schedule 7]	1.2 MWth emergency diesel generator	---	No limit set	---	---	---
A8 [Point A8 on plan in Schedule 7]	12 MWth auxiliary boiler fired on natural gas	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	---	---	---
		Carbon monoxide	No limit set	---	---	---
A9, A10 and A11 [Points A9, A10 and A11 on plan in Schedule 7]	LCP467, LCP468 and LCP469 Gas turbines fired on natural gas	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	50 mg/m ³ 70% to base load ¹	Monthly mean of validated hourly averages	Continuous	BS EN 14181
			55 mg/m ³ 70% to base load ¹	Daily mean of validated hourly averages		
			55 mg/m ³ MSUL/MSDL to base load ²			

Table S3.1 Point source emissions to air						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
			100 mg/m ³ 70% to base load ¹	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
		Carbon monoxide	100 mg/m ³ 70% to base load ¹	Monthly mean of validated hourly averages		
			110 mg/m ³ 70% to base load ¹	Daily mean of validated hourly averages		
			110 mg/m ³ MSUL/MSDL to base load ²			
			200 mg/m ³ 70% to base load ¹	95% of validated hourly averages within a calendar year		
		Sulphur dioxide	No limit set	---	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
A9, A10 and A11 [Points A9, A10 and A11 on plan in Schedule 7]	LCP467, LCP468 and LCP469 Gas turbines fired on natural gas	Oxygen	---	---	Continuous as appropriate to reference	BS EN 14181
		Water vapour	---	---	Continuous as appropriate to reference	BS EN 14181
		Stack gas temperature	---	---	Continuous as appropriate to reference	Traceable to national standards

Table S3.1 Point source emissions to air						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
		Stack gas pressure	---	---	Continuous as appropriate to reference	Traceable to national standards
		As required by the Method Implementation Document for BS EN 15259	---	---	Pre-operation and when there is a significant operational change	BS EN 15259
A12 [Point A12 on plan in Schedule 7]	2.8 MWth emergency diesel generator	---	No limit set	---	---	---
A13 [Point A13 on plan in Schedule 7]	0.8 MWth fire water pump fired on diesel	---	No limit set	---	---	---
A14 [Point A14 on plan in Schedule 7]	23.1 MWth auxiliary boiler fired on natural gas	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	---	---	---
		Carbon monoxide	No limit set	---	---	---
Vents for lubricating oil systems	Gas and steam turbines	VOCs	No limit set	---	---	---
Steam and pressure release valves	Process areas on site	---	No limit set	---	---	---

Table S3.1 Point source emissions to air						
Emission point ref. & location	Source	Parameter	Limit (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
Vents for natural gas venting	Gas distribution pipelines on site	---	No limit set	---	---	---

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

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

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
W1 emission to Damhead Creek [Point W1 on plan in Schedule 7]	Storm water basin 1 ¹	Flow	60 m ³ per hour	Instantaneous	Continuous	MCERTS accredited
		Temperature	30°C	Instantaneous	Continuous	MCERTS accredited
		pH range	6-9	Instantaneous	Continuous	BS6068-2.50
		Total suspended solids	60 mg/l	Flow weighted monthly average	Monthly	BS EN 872
		Mercury and its compounds, expressed as mercury (Total Hg)	0.005 mg/l	Flow weighted monthly average	Monthly	BS EN 13500
		Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l	Flow weighted monthly average	Monthly	BS 6068-2.89
		BOD	40 mg/l	Flow weighted monthly average	Monthly	ISO 5815
		Total ammonia	8 mg/l	Flow weighted monthly average	Monthly	BS 6068 2.11

Table S3.2 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
		Oil or grease	No visible traces ²	Instantaneous	Daily	Visual check
W2 emission to Damhead Creek [Point W2 on plan in Schedule 7]	Storm water basin 2 ¹	Flow	90 m ³ per hour	Instantaneous	Continuous	MCERTS accredited
		Temperature	30°C	Instantaneous	Continuous	MCERTS accredited
		pH range	6-9	Instantaneous	Continuous	BS6068-2.50
		Total suspended solids	60 mg/l	Flow weighted monthly average	Monthly	BS EN 872
		Mercury and its compounds, expressed as mercury (Total Hg)	0.005 mg/l	Flow weighted monthly average	Monthly	BS EN 13500
		Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l	Flow weighted monthly average	Monthly	BS 6068-2.89
		BOD	40 mg/l	Flow weighted monthly average	Monthly	ISO 5815
		Total ammonia	8 mg/l	Flow weighted monthly average	Monthly	BS 6068 2.11
		Oil or grease	No visible traces ²	Instantaneous	Daily	Visual check

Note 1: Storm water basin comprises the following effluent streams:

- plant processing areas having passed through wastewater conditioning basin;
- treated sewage effluent;
- collected rain water; and
- site drainage having passed through an oil separator

Note 2: No visible oil or grease on the surface of the storm water basin at point of discharge. Physical visual checks required once per day.

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen	A1, A2, A9, A10, A11	Every 3 months	1 January, 1 April, 1 July, 1 October
Carbon monoxide	A1, A2, A9, A10, A11	Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	A1, A2, A9, A10, A11	Every 6 months	1 January, 1 July
Emissions to water Parameters as required by condition 3.5.1	W1, W2	Every 3 months	1 January, 1 April, 1 July, 1 October

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

Table S4.3 Chapter III Performance parameters for reporting to DEFRA		
Parameter	Frequency of assessment	Units
Thermal input capacity for each LCP	Annually	MW
Annual fuel usage for each LCP	Annually	TJ
Total emissions to air of NO _x for each LCP	Annually	t
Total emissions to air of SO ₂ for each LCP	Annually	t
Total emissions to air of dust for each LCP	Annually	t
Operating hours for each LCP	Annually	hr

Table S4.4 Reporting forms				
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air & Energy	Form IED AR1 – SO ₂ , NO _x and dust mass emission and energy	01/01/16	National and Area Office	01/01/17
LCP	Form IED HR1 – operating hours	01/01/16	National	31/12/15
Air	Form IED CON 2 – continuous monitoring	01/01/16	Area Office	31/12/15
CEMs	Form IED CEM – Invalidation Log	01/01/16	Area Office	31/12/15
Resource efficiency	Form REM1 – resource efficiency annual report	01/01/16	National	31/12/15
Water	Form water 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	
Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

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

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

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

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

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

“CEN” means Comité Européen de Normalisation.

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

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

“DLN” means dry, low NO_x burners.

“emissions to land” includes emissions to groundwater.

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

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

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

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

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

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“MCR” means maximum continuous rating.

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

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

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

“ncv” means net calorific value.

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

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

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

“SI” means site inspector.

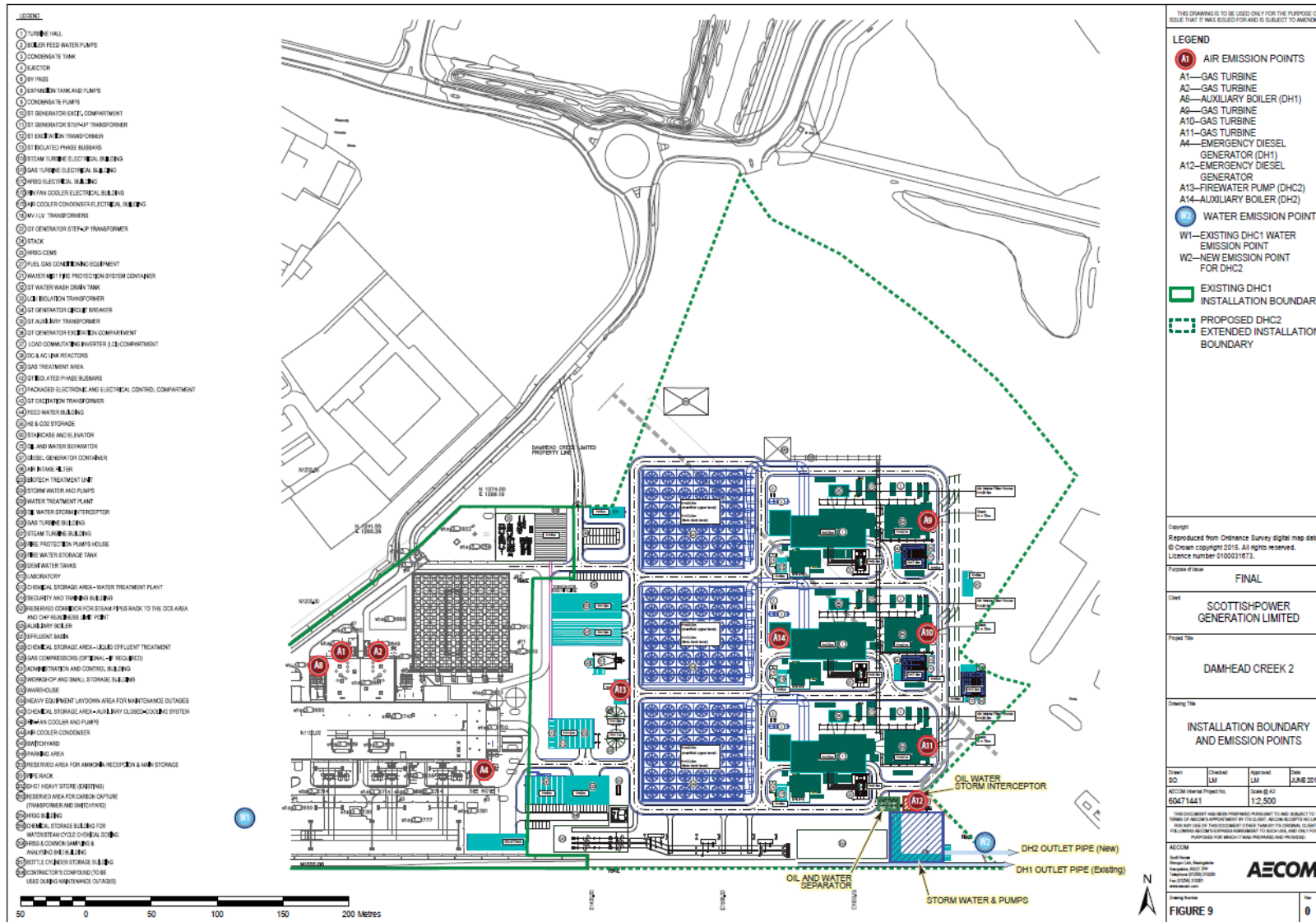
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from combustion processes comprising a gas turbine with a waste heat boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% dry for liquid and gaseous fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT

Variation application number
EPR/DP3933DN/V002