



# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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Saltholme South Power Limited

Saltholme South Power

Cowpen Bewley Rd

Saltholme

Stockton-on-Tees

TS23 4HS

### **Permit number**

EPR/XP3106PT

# Saltholme South Power

## Permit number EPR/XP3106PT

### Introductory note

#### **This introductory note does not form a part of the permit**

The main features of the permit are as follows.

The proposed facility will consist of 4 x 26 megawatt thermal (MWth) (4 x 12.6 megawatt electrical (MWe)) spark ignition fast start reciprocating gas engines and will operate to provide energy to the grid during peak periods operating under Section 1.1 Part A(1)(a) of the Environmental Permitting Regulations (EPR) for the burning of fuel in an appliance with a rated thermal input of 50 or more MW thermal (MWth).

The individual engines are also Medium Combustion Plant (MCP) under Schedule 25A of the Environmental Permitting Regulations.

The gas engines are designed to operate in the capacity market to provide electricity to the National Grid. The engines have an aggregated thermal input of approximately 105 MW. Each engine will be fuelled by natural gas and will discharge via an individual stack 15 meters high.

The Power Plant will supply electrical power on a short term basis meeting peak demand with the electrical distribution network. It will operate for a maximum of 3,500 hours per year as and when called upon by the National Grid.

The engines operate at a high rate of efficiency to minimise exhaust emissions to air, in addition Selective Catalytic Reduction (SCR) will be used to further abate emissions.

Natural gas will be delivered to the site from the National Transmission System (NTS). No natural gas will be stored on site.

Lubricating oil for the engines will be stored in bunded containers, antifreeze will be stored as part of the radiator fluid mix within the generator's bunded closed cooling circuit and SCR reagents will be stored in a bunded area.

No process effluent is produced from the process. Surface water run-off will be captured by a drainage system prior to being discharged to the Belasis Beck via an attenuation pond.

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

| <b>Status log of the permit</b>                                  |                         |  |
|--|-------------------------|--|
| <b>Description</b>   | <b>Date</b>             | <b>Comments</b>                                  |
| Application EPR/XP3106PT/A001                                    | Duly made<br>16/09/2019 | Application for 105MW thermal input gas engines. |
| Additional information received                                  | 28/02/2020              | Revised site drainage plan                       |
| Additional information received                                  | 03/03/2020              | Noise survey data                                |
| Additional information received                                  | 14/02/2020              | Revised noise assessment                         |
| Additional information received                                  | 06/05/2020              | Noise assessment for bird life                   |
| Additional information received                                  | 17/12/2020              | Revised site plan                                |
| Permit determined<br>EPR/XP3106PT<br>(PAS Billing ref. XP3106PT) | 15/04/2021              | Permit issued to Saltholme South Power Limited.  |

| <b>Other Part A installation permits relating to this installation</b> |                      |                      |
|--|----------------------|----------------------|
| <b>Operator</b>  | <b>Permit number</b> | <b>Date of issue</b> |
| Saltholme North Power Limited  | EPR/LP3300PZ         | 15/04/2021           |

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/XP3106PT**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**Saltholme South Power Limited** (“the operator”),

whose registered office is

**145 Kensington Church Street**

**London**

**United Kingdom**

**W8 7LP**

company registration number **11504316**

to operate part of an installation at

**Saltholme South Power**

**Cowpen Bewley Rd**

**Saltholme**

**Stockton-on-Tees**

**TS23 4HS**

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

| <b>Name</b>             | <b>Date</b>       |
|-------------------------|-------------------|
| <b>Samantha Haddock</b> | <b>15/04/2021</b> |

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) 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.
  - (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 BEIS 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; 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 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 shaded in green on the site plan at schedule 7 to this permit, which is within the area edged in blue 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 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 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.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

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 Activity AR1 shall operate for no more than 3,500 hours per year.

### **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;
  - (b) process monitoring specified in table S3.3.
- 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) unless otherwise agreed in writing by the Environment Agency. Newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 2.5 times the daily emission limit value (ELV) specified in schedule 3 table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.
- 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 table S3.1 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.5.10, 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.
- 3.5.6 Continuous measurement systems on emission points from the engines shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.5.7 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.5.8 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.
- 3.5.8 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.
- 3.5.9 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.

- 3.5.10 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 release points defined in table S3.1 the validated 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 of a single measured result shall be taken to be 20%;
  - (c) the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
  - (d) 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. 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
  - (e) 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 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.

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 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:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

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.

## 4.4 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

| <b>Table S1.1 activities</b>        |  |   |  |
|-------------------------------------|--|---|--|
| <b>Activity reference</b>           | <b>Activity listed in Schedule 1 of the EP Regulations</b>   | <b>Description of specified activity</b>  | <b>Limits of specified activity</b>  |
| AR1                                 | Section 1.1 A(1) (a):<br>Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more | Operation of 4 gas fired reciprocating engines with an aggregated thermal input of 105 MWth | From receipt of natural gas to discharge of exhaust gases, and the generation of electricity for export to the National Grid.<br><br>The operational hours of the installation shall not exceed the specifications set out in condition 2.3.6. |
| <b>Directly Associated Activity</b> |  |   |  |
| AR2                                 | Raw material storage   | From receipt of raw materials to dispatch for use.  |  |
| AR3                                 | Surface water drainage   | Handling and storage of site drainage until discharge to the site surface water system.     |  |

| <b>Table S1.2 Operating techniques</b>            |  |                         |
|---|--|-------------------------|
| <b>Description</b>                                | <b>Parts</b>   | <b>Date Received</b>    |
| Application<br>EPR/XP3106PT/A001                  | Application forms B2 and B3 and all referenced supporting documentation. | Duly Made<br>16/09/2019 |
| Further information received<br>EPR/XP3106PT/A001 | Revised site drainage plan   | 28/02/2020              |
| Further information received<br>EPR/XP3106PT/A001 | Revised site plan  | 17/12/2020              |

| <b>Table S1.3 Improvement programme requirements</b> |  |  |
|--|--|--|
| <b>Reference</b>                                     | <b>Requirement</b>   | <b>Date</b>  |
| IC1  | <p>The Operator shall establish the methane (CH<sub>4</sub>) emissions from the engines and compare these to the daily average BAT AEL of 500 mg/m<sup>3</sup> CH<sub>4</sub> expressed as carbon as detailed in BAT 44 Table 26 of the Large Combustion Plant Best Available Techniques reference document (Bref).</p> <p>Based on the conclusions of this assessment the Operator shall submit an appropriate proposal to assess potential methane slip for the lifespan of the engines and outline an action plan that will be followed in the instance that emissions above the manufacturer's specification or appropriate benchmark level or approaching the emission limit value stated in this permit are identified</p> <p>The result of the assessment and the proposed action plan shall be submitted for approval with the Environment Agency and any proposals shall be implemented within the agreed timescales.</p> | Within 6 months of the completion of commissioning of the installation |
| IC2  | The Operator shall establish emissions of carbon monoxide and formaldehyde from the engines.   | Within 6 months of the   |

| <b>Table S1.3 Improvement programme requirements</b> |   |  |
|--|---|--|
| <b>Reference</b>                                     | <b>Requirement</b>  | <b>Date</b>  |
|  | Using this information, an assessment of the impacts of carbon monoxide emissions and possible impacts of formaldehyde should be undertaken in line with our H1 guidance or equivalent methodology. A review of the emission levels in comparison to the relevant benchmark levels shall also be carried out. A written report detailing the findings of the assessment of the emissions, predicted impacts and the review in comparison to the relevant benchmarks should be submitted to the Environment Agency for approval.   | completion of commissioning of the installation                        |
| IC3  | <p>In order to validate the noise assessment provided within the application, the Operator shall conduct a comprehensive noise survey undertaken by an independent experienced and suitably qualified person in accordance with BS 4142:2014+A1:2019 (Methods for rating and assessing industrial and commercial sound) and submit a report to the Environment Agency for approval. The survey will compare measurements with the ambient noise levels and the results described in the revised noise assessment dated 14/02/2020 of application EPR/XP3106PT/A001.</p> <p>In the event that the report shows that noise could have a significant adverse impact at the sensitive receptors, the operator shall submit a noise management plan having regard to Appendix 4 of the Environment Agency's Horizontal Guidance Note IPPC H3 (part 2) - Noise Assessment and Control.</p> <p>The plan shall include proposals for the further attenuation and/or management of noise and clearly defined timescales, for the implementation of the proposed measures. The proposals shall be submitted for approval with the Environment Agency and any proposals shall be implemented within the agreed timescales.</p> | Within 3 months of the completion of commissioning of the installation |
| IC4  | The Operator shall submit a written report to the Environment Agency summarising the NO <sub>x</sub> mass emissions during start-up time compared to the manufacturer's guaranteed performance data as detailed in application EPR/XP3106PT/A001.   | Within 3 months of the completion of commissioning of the installation |
| IC5  | <p>The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the SCR system to minimise oxides of nitrogen (NO<sub>x</sub>) emissions within the emission limit values described in this permit.</p> <p>The report shall include an assessment of the level of ammonia slip versus NO<sub>x</sub> emissions that can be achieved under optimum operating conditions.</p>  | Within 3 months of the completion of commissioning of the installation |
| IC6  | The Operator shall carry out a cost benefit assessment (CBA) of opportunities for cogeneration (also known as combined heat and power) or supplying a district heating or cooling network. The CBA shall be undertaken in line with the Environment Agency's Draft guidance on completing cost-benefit assessments for installations under BAT and CHP Ready Guidance for Combustion and Energy from Waste Power Plants V1.0 February 2013. BAT is to maximise the Primary Energy Saving and implement where cost beneficial.   | Within 6 months of the completion of commissioning of the installation |

| <b>Table S1.3 Improvement programme requirements</b> |  |             |
|--|--|-------------|
| <b>Reference</b>                                     | <b>Requirement</b>   | <b>Date</b> |
|  | A written report detailing the CBA findings and the assessment methodology used shall be submitted to the Environment Agency for approval. |             |

| <b>Table S1.4 Pre-operational measures</b> |   |
|--|---|
| <b>Reference</b>                           | <b>Pre-operational measures</b>   |
| PO1  | At least 4 weeks (or such other date as agreed in writing by the Environment Agency) before any fuel is burnt at the installation, the Operator shall provide confirmation to the Environment Agency that a written Environment Management System (EMS) has been produced, which shall be available for inspection. |



## Schedule 2 – Waste types, raw materials and fuels

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

## Schedule 3 – Emissions and monitoring

| Table S3.1 Point source emissions to air – emission limits and monitoring requirements |                       |   |                        |   |  |  |
|--|-----------------------|---|------------------------|---|--|--|
| Emission point ref. & location   | Source                | Parameter   | Limit (including unit) | Reference period                        | Monitoring frequency                   | Monitoring standard or method  |
| A1 to A4 (as shown on the site plan in schedule 7)                                     | Engine exhaust stacks | Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> ) | 30 mg/m <sup>3</sup>   | Daily mean of validated hourly averages | Continuous                             | BS EN 14181  |
|  |                       | Carbon monoxide   | No limit set           | Daily mean of validated hourly averages | Continuous                             | BS EN 14181  |
|  |                       | Sulphur dioxide   | No limit set           | Periodic                                | Annually                               | By calculation method as agreed in writing with the Environment Agency |
|  |                       | Ammonia   | 5 mg/m <sup>3</sup>    | Periodic                                | Quarterly                              | Procedural requirements of BS EN 14791                                 |
|  |                       | Oxygen  | No limit set           | -                                       | Continuous as appropriate to reference | BS EN 14181  |
|  |                       | Water vapour  | No limit set           | -                                       | Continuous as appropriate to reference | BS EN 14181  |

| <b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b> |  |                  |                           |                         |                             |                                      |
|---|--|------------------|---------------------------|-------------------------|-----------------------------|--------------------------------------|
| <b>Emission point ref. &amp; location</b>   | <b>Source</b>  | <b>Parameter</b> | <b>Limit (incl. unit)</b> | <b>Reference Period</b> | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b> |
| W1 on site plan in schedule 7 emission to Belasis Beck  | Uncontaminated surface water from site drainage system | -                | -                         | -                       | -                           | -                                    |

| <b>Table S3.3 Process monitoring requirements</b>                                |  |  |                                      |  |
|--|--|--|--------------------------------------|--|
| <b>Emission point reference or source or description of point of measurement</b> | <b>Parameter</b>   | <b>Monitoring frequency</b>  | <b>Monitoring standard or method</b> | <b>Other specifications</b>                                      |
| Engines 1 - 4  | Net electrical efficiency                                    | Once within 4 months after commissioning and then after each modification that could significantly affect these parameters | EN Standards or equivalent           | -  |
|  | Beginning and end of operation periods of individual engines | Continuous   | -                                    | Record the time of day and duration of operation of each engine. |
|  | Total operating hours  | Continuous   | -                                    | As specified in condition 2.3.6                                  |

## Schedule 4 – Reporting

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

| <b>Table S4.1 Reporting of monitoring data</b>                 |   |                         |                      |
|--|---|-------------------------|----------------------|
| <b>Parameter</b>   | <b>Emission or monitoring point/reference</b> | <b>Reporting period</b> | <b>Period begins</b> |
| Emissions to air<br>Parameters as required by condition 3.5.1. | A1 to A4                                      | Every 12 months         | 1 January            |

| <b>Table S4.2 Annual production/treatment</b> |                  |
|---|------------------|
| <b>Parameter</b>                              | <b>Units</b>     |
| Power generated                               | MWh <sub>e</sub> |

| <b>Table S4.3 Performance parameters</b> |                                |  |
|--|--------------------------------|--|
| <b>Parameter</b>                         | <b>Frequency of assessment</b> | <b>Units</b>                                   |
| Water usage                              | Annually                       | M <sup>3</sup> /MWh <sub>e</sub> generated     |
| Energy usage                             | Annually                       | Total energy used/MWh <sub>e</sub> generated   |
| Total engine operating hours             | Annually                       | hours  |
| Oil changes                              | Annually                       | MWh <sub>e</sub> generated between oil changes |

| <b>Table S4.4 Reporting forms</b> |   |                     |
|-----------------------------------|---|---------------------|
| <b>Media/parameter</b>            | <b>Reporting format</b>   | <b>Date of form</b> |
| Air                               | Form air 1 or other form as agreed in writing by the Environment Agency                                   | 14/04/21            |
| Water usage                       | Form water usage 1 or other form as agreed in writing by the Environment Agency                           | 14/04/21            |
| Energy usage                      | Form energy 1 or other form as agreed in writing by the Environment Agency                                | 14/04/21            |
| Other performance indicators      | Form performance 1 or other form as agreed in writing by the Environment Agency                           | 14/04/21            |
| Engine operating hours            | Forms hours 1 and 2 operational engine hours or other form as agreed in writing by the Environment Agency | 14/04/21            |

# 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 |  |

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

|   |  |
|---|--|
| <b>(b) Notification requirements for the breach of a limit</b>                      |  |
| <b>To be notified within 24 hours of detection unless otherwise specified below</b> |  |
| Measures taken, or intended to be taken, to stop the emission                       |  |

|   |                            |
|---|----------------------------|
| <b>Time periods for notification following detection of a breach of a limit</b> |                            |
| <b>Parameter</b>  | <b>Notification period</b> |
|   |                            |
|   |                            |
|   |                            |

|  |  |
|--|--|
| <b>(c) Notification requirements for the breach of permit conditions not related to limits</b> |  |
| <b>To be notified within 24 hours of detection</b>   |  |
| Condition breached   |  |
| Date, time and duration of breach  |  |
| Details of the permit breach i.e. what happened including impacts observed.                    |  |
| Measures taken, or intended to be taken, to restore permit compliance.                         |  |

|  |  |
|--|--|
| <b>(d) Notification requirements for the detection of any significant adverse environmental effect</b> |  |
| <b>To be notified within 24 hours of detection</b>   |  |
| 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**

|  |  |
|--|--|
| <b>Any more accurate information on the matters for notification under Part A.</b>   |  |
| 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. |  |
|---|--|

|              |  |
|--------------|--|
| <b>Name*</b> |  |
| 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.

“emissions to land” includes emissions to groundwater.

“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 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, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

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

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Operating hours” means the hours the Installation operates excluding start up and shutdown, if any one engine operates it shall be considered that the whole installation operates.

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:

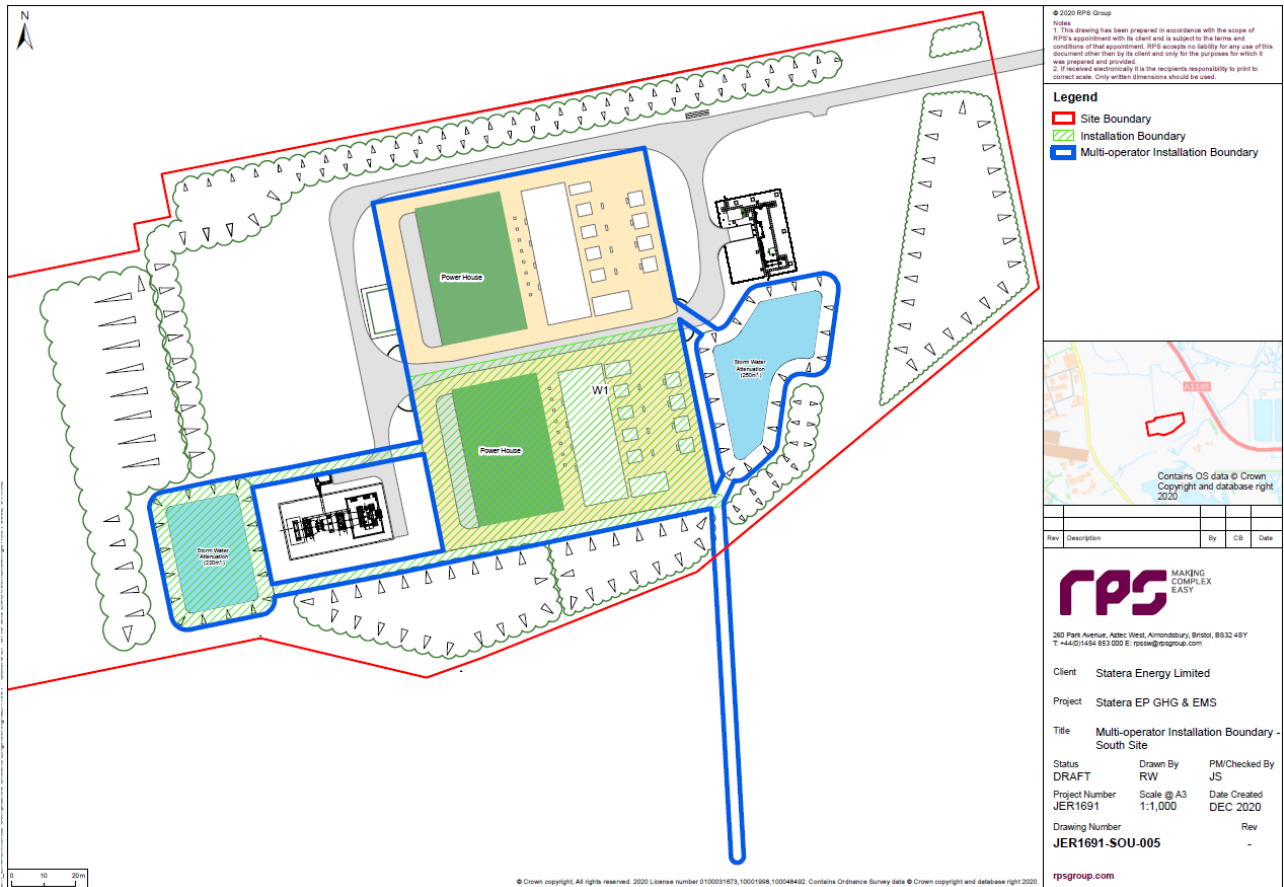
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% 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.

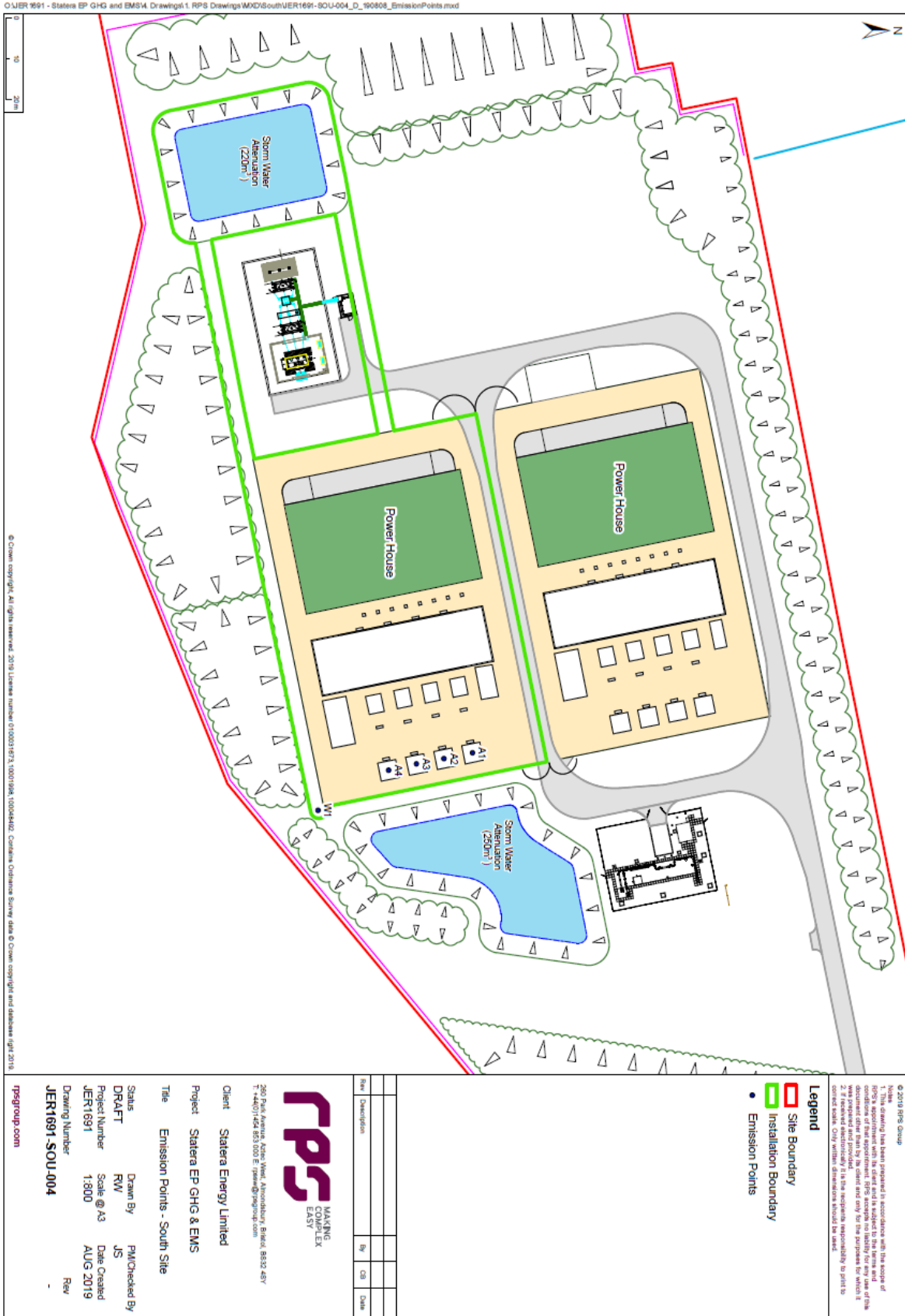


# Schedule 7 – Site plan

## Installation boundary



# Emission points



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END OF PERMIT