Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Standard Gas SG NO.1 Limited

Standard Gas
Hangar 2
Scottow Enterprise Park
Badersfield
Norfolk
NR10 5FB

Permit number

EPR/TP3529LW

Standard Gas
Permit number EPR/TP3529LW

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit is for a waste thermal treatment plant, the listed activity is section 1.2 Part A(1)(f)(iv), activities involving the pyrolysis, carbonisation, distillation, partial oxidation or other heat treatment of other carbonaceous materials.

The installation is located In Badersfield at the Scottow Enterprise Park, Norfolk. The national grid reference is TG 26104 23008. The nearest residential properties are approximately 400 m NW of the installation. There are three European habitat sites within 10 km and three local wildlife sites within 2 km of the installation.

The plant will pyrolyse refuse derived fuel (RDF) to produce cracked and cleaned syngas. The syngas will be burned in two CHP engines to generate power and provide heat to the wider Scottow Enterprise Park. It will treat about 50,000 tonnes of waste per year and generate approximately 5 MWe of electricity and 2.5 MWth of heat. The operator intends to clean the syngas to the extent that it is no longer a waste and emissions cannot be higher than from burning natural gas, in which case the requirements of IED chapter IV will not apply when it is burned. The operator intends to demonstrate gas quality equivalent to natural gas during commissioning, incineration emission limits will apply if this gas quality is not demonstrated.

Waste is delivered loose or in pre-prepared sealed bales. Baled waste is stored externally within a designated sealed storage area or internally within the main processing building. All loose waste is stored internally within a dedicated bay within the main processing building. Waste is loaded into a sealed and contained hopper, de-baled if required, and pre-processed via screening equipment. Once processed, the waste is transferred into the primary pyrolysis retort where it undergoes thermal conversion and processed into syngas. The syngas is then passed through multiple heat exchangers to elevate and thermally crack it to ensure the effective thermal decomposition of all long chain hydrocarbons and avoid tars. Once cracked, the syngas is quenched and rapidly cooled to remove any residual carbon and solids in the gas stream. Wet scrubbing is then used to remove further contaminants. The syngas is cooled and a condensate collected which is re-used in the process or transferred off-site for disposal.

The syngas quality is monitored to ensure it is suitable for combustion. It is burned in two gas engines to generate electricity and heat. The pyrolysis unit is heated using LPG in burners at start-up which after start-up can be fuelled by syngas.

The pyrolysis plant flue stack is emission point A1, combustion exhaust gases from the CHP engines are emitted via a multi-flue stack, emission points A2a and A2b. There is also an emergency flare, emission point A3.

The only emission to water is clean surface water run-off which discharges into the wider site surface water drainage system at emission point W1. There are no emissions to sewer.

Inert material in the wastes is left behind as a pyrolysis char which is high in carbon. It is intended to be used off-site in construction or at cement kilns. Wastes from the process including waste water effluent are removed from site for disposal.

The operator has an environmental management system (EMS). It is intended that the EMS will meet the requirements of ISO 14001.

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

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/TP3529LW/A001	Duly made 24/06/2025	
Response to schedule 5 notice dated 04/09/2025	Response received 28/11/2025	Waste analysis, additional description of process steps, updated FPP
Response to schedule 5 notice dated 15/12/2025	Response received 04/02/2026	Information on syngas quality and an updated FPP
Permit determined EPR/TP3529LW	17/04/2026	Permit issued to Standard Gas SG NO.1 Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/TP3529LW

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

Standard Gas SG NO.1 Limited ("the operator"),

whose registered office is

40 Queen Anne Street
London
W1G 9EL

company registration number 15420033

to operate an installation at

Standard Gas
Hangar 2
Scottow Enterprise Park
Badersfield
Norfolk
NR10 5FB

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

Name	Date
Principal Permitting Team Leader	**17/04/2026**

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.

(c) in accordance with a written other than normal operating conditions (OTNOC) management plan; following written notification by the Environment Agency:

(i) if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or

(ii) in line with the syngas protocol.

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 recovered with a high level of energy efficiency and energy is used efficiently in the activities;

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

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

1.3 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.

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").

2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

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 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 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 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.

2.3.6 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.

2.3.7 Waste shall not be charged to the pyrolysis plant if:

(a) There is a stoppage, disturbance or failure of the syngas cleaning plant

2.3.8 For the following activities referenced in Schedule 1 Table S1.1: AR2

(b) the operator must keep periods of start-up and shut down of the combustion plant as short as possible.

(c) there shall be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

2.4 Additional operating techniques for incineration

2.4.1 Conditions 2.4.2 to 2.4.6 shall apply following written notification by the Environment Agency:

(i) if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or

(ii) in line with the syngas protocol.

2.4.2 Waste shall not be charged to the pyrolyser if:

(a) there is a stoppage, disturbance or failure of the CHP engines or the syngas burners

(b) any continuous emission limit value in schedule 3 table S3.1(c) is exceeded during abnormal operation; or

(c) any continuous emission limit value in schedule 3 table S3.1(b) is exceeded, other than during abnormal operation; or

(d) continuous emission monitors to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 (b) are unavailable other than during abnormal operation; or

(e) continuous emission monitors to demonstrate compliance with the emission limit values for particulates, TOC or CO in schedule 3 are unavailable unless alternative techniques, as agreed in writing with the Environment Agency, are used to demonstrate compliance with those emission limit values.

2.4.3 The operator shall record the beginning and end of each period of "abnormal operation".

2.4.4 During a period of "abnormal operation", the operator shall restore normal operation of the failed equipment or replace the failed equipment as soon as possible.

2.4.5 The operator shall interpret the start of the period of "abnormal operation" as the earliest of the following:

(a) a technically unavoidable stoppage, disturbance, or failure of continuous emission monitors.

(b) Any other technically unavoidable stoppage, disturbance, or failure of the plant which is causing or could lead to an exceedance of an emission limit value in table S3.1(b).

2.4.6 The operator shall interpret the end of the period of "abnormal operation" as the earliest of the following:

(a) when the failed equipment is repaired and brought back into normal operation;

(b) when the operator initiates a shut down of the waste combustion activity, as described in the application or as agreed in writing with the Environment Agency;

(c) The failed equipment has not been repaired and brought back into normal operation and a single period of abnormal operation reaches a duration of 4 hours after the start of abnormal operation on a combustion unit;

(d) Abnormal operation occurs for a combustion unit and the cumulative duration of abnormal operation periods over 1 calendar year has reached 60 hours on that unit.

2.5 Improvement programme

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

2.5.2 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.

2.6 Pre-operational conditions

2.6.1 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(a), S3.1(b), S3.1(c) and S3.2.

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

3.1.3 The limits in table S3.1(a) shall not be exceeded.

3.2 Monitoring

3.2.1 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(a) and S3.2; or

(b) process monitoring specified in table S3.3; and.

3.2.2 For the following activities referenced in schedule 1, table S1.1 (AR2), the first monitoring measurements shall be carried out within four months of the issue date of the permit or of the date when the MCP is first put into operation, whichever is later.

3.2.3 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

3.2.4 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.

3.2.5 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.2.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.2.6 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(a), S3.1(b), S3.1(c) and S3.2 unless otherwise agreed in writing by the Environment Agency.

3.2.7 Monitoring of MCP shall not take place during periods of start-up or shut down.

3.3 Incineration emissions limits and monitoring for emission to air

3.3.1 The following conditions apply instead of 3.1.3, 3.2.1 and 3.2.2 following written notification by the Environment Agency:

(i) if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or

(ii) in line with the syngas protocol.

3.3.2 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(b), S3.1(c) and S3.2

(b) process monitoring specified in table S3.3; and.

(c) residue quality in table S3.4

3.3.3 The limits in table S3.1(b) shall not be exceeded except during periods of abnormal operation.

3.3.4 The limits in table S3.1 (c) shall not be exceeded during abnormal operation.

3.3.5 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.2 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 unless otherwise agreed in writing by the Environment Agency have an MCERTS certified range which is not greater than 1.5 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. Newly installed Data handling and acquisition systems (DAHS), or DAHS replacing existing DAHS, shall have MCERTS certification.

3.3.6 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1(b) and S3.1(c); the Continuous Emission Monitors shall be used such that;

(a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages of the emission limit values:

- Carbon monoxide 10%
- Sulphur dioxide 20%
- Oxides of nitrogen (NO & NO_2 expressed as NO_2) 20%
- Particulate matter 30%
- Total organic carbon (TOC) 30%
- Hydrogen chloride 40%
- Ammonia 40%

(b) valid half-hourly average values or 10-minute averages shall be determined within the effective operating time (excluding the start-up and shut-down periods) from the measured values after having subtracted the value of the confidence intervals in condition 3.3.6.

(c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour or 10 minute period, the half-hourly average or 10-minute average shall in any case be considered valid if measurements are available for a minimum of 20 minutes or 7 minutes during the half-hour or 10-minute period respectively. The number of half-hourly or 10-minute averages so validated shall not exceed 5 or 15 respectively per day;

(d) daily average values shall be calculated as the average of valid half hourly averages or 10 minute averages over calendar day excluding half hourly averages or 10 minute averages during periods of abnormal operation. The daily average value shall be considered valid if no more than five half-hourly average or fifteen 10-minute average values in any day have been determined not to be valid;

(e) no more than ten daily average values per year shall be determined not to be valid.

3.3.7 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S3.4. Additional samples shall be taken and tested and appropriate action taken, whenever:

(a) disposal or recovery routes change; or

(b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate

3.4 Emissions of substances not controlled by emission limits

3.4.1 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.

3.4.2 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.

3.4.3 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.

3.5 Odour

3.5.1 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.

3.6 Noise and vibration

3.6.1 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.

3.6.2 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.

3.7 Pests

3.7.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.7.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.8 Fire prevention

3.8.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

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.

4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual operating hours for each MCP.

4.2 Reporting

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

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

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

(d) following written notification by the Environment Agency:

(i) if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or

(ii) in line with the syngas protocol.

the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Chapter IV of the Industrial Emissions Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the IED.

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.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

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.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 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 reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity and waste types**
AR1	S1.2 A1 (f)(iv)	Pyrolysis of non-hazardous waste	From receipt of waste to production, cleaning and storage of syngas Waste types as specified in table S2.2. Only wastes that meet the specification set out in table 1 in the schedule 5 notice response received on 28/11/2025 shall be pyrolysed. Combustion of LPG or syngas to heat the pyrolysis retort, and emission of combustion exhaust gases.
	Directly Associated Activity		
AR2	Directly associated activity	Combustion of syngas in two CHP engines. New Medium Combustion Plants: 2 x < 10 MWth gas engines	From receipt of syngas to emission of combustion exhaust gases
AR3	Directly associated activity	Emergency flare	Combustion of syngas in flare. For emergency use only
AR4	Directly associated activity	Storage of wastes produced from the pyrolysis process	From generation of waste to removal from the installation

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application EPR/TP3529LW/A001	Application support document sections: • 3 (excluding table 3.2, table 3.2) • 4.2, 4.3, 4.4, 4.5, 4.6 • 6	Duly Made 24/06/2025
Response to Schedule 5 Notice dated 04/09/2025	• Response to question 1 (waste specification) • Response to questions 10 to 15	28/11/2025

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC01	**Syngas quality** The Operator shall submit a written report to the Environment Agency for assessment and written approval on testing carried out during commissioning to demonstrate that the syngas quality meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas). The report shall also include: • Details of the operating parameters of the syngas cleaning equipment at the time of the testing • An updated syngas protocol for on-going syngas sampling, testing and process monitoring of the plant including syngas cleaning equipment	Within 1 month of the completion of commissioning.
IC02	**Metal monitoring** The Operator shall carry out an assessment of the impact of emissions to air the following component metals subject to emission limit values: • As, Cr(VI), Cu and Ni A report on the assessment shall be submitted to the Environment Agency for approval. Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant ES. In the event that the assessment shows that an environmental standard can be exceeded, the report shall include proposals for further investigative work.	Within 15 months following written notification by the Environment Agency: • if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or • in line with the syngas protocol.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC03	**Dioxin monitoring** The operator shall carry out a programme of dioxin and dioxin like PCB monitoring over a period and frequency agreed with the Environment Agency. The operator shall submit a report to the Environment Agency for approval with an analysis of whether dioxin emissions can be considered to be stable.	Within 6 months following written notification by the Environment Agency: • if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or • in line with the syngas protocol.
IC04	**Mercury monitoring** The operator shall carry out a programme of mercury monitoring over a period and frequency agreed with the Environment Agency. The operator shall submit a report to the Environment Agency for approval with an analysis of whether the waste feed to the plant can be proven to have a low and stable mercury content.	Within 6 months following written notification by the Environment Agency: • if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or • in line with the syngas protocol.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC05	**Monitoring calibration** The Operator shall submit a written summary report to the Environment Agency for assessment and written approval to confirm that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 and Table S3.1(a) complies with the requirements of EN 14181, specifically the requirements of QAL1, QAL2 and QAL3. The report shall include the results of calibration and verification testing.	Initial calibration report to be submitted to the Environment Agency within 3 months following written notification by the Environment Agency: • if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or • in line with the syngas protocol. Full summary evidence compliance report to be submitted within 18 months following written notification by the Environment Agency: • if the operator is unable to demonstrate to the satisfaction of the Environment Agency that the syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas); or • in line with the syngas protocol.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC06	**Monitoring point locations** During commissioning, the operator shall carry out tests to assess whether the air monitoring location(s) meet the requirements of BS EN 15259 and supporting Method Implementation Document (MID). A written report shall be submitted to the Environment Agency assessment and written approval setting out the results and conclusions of the assessment including where necessary proposals for improvements to meet the requirements. The report shall specify the design of the ports for PM10 sampling. Where notified in writing by the Environment Agency that the requirements are not met, the operator shall submit proposals or further proposals for rectifying this in accordance with the time scale in the notification. The proposals shall be implemented in accordance with the Environment Agency's written approval.	Report to be submitted to the Environment Agency within 3 months of completion of commissioning.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO01	**Commissioning** Prior to the commencement of commissioning, the Operator shall submit a written commissioning plan to the Environment Agency for assessment and written approval, including timelines for completion. 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. The plan shall also include: • proposed sampling and testing to demonstrate that the syngas quality meets article IED 42(1) requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas) • proposed process monitoring of the process including syngas cleaning equipment at the time of the testing • a proposed syngas protocol that includes on-going syngas sampling, testing and process monitoring of the plant including syngas cleaning equipment Commissioning shall be carried out in accordance with the commissioning plan as approved.

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for pyrolysis plant	
Maximum quantity	**50,000 tonnes per year**
Specification	**The specification set out in table 1 in schedule 5 notice response received on 28/11/2025**
Waste code	**Description**
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

Schedule 3 – Emissions and monitoring

Table S3.1 (a) Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Pyrolyser burner exhaust stack burning syngas or LPG	120 mg/m^3	Periodic	Annually	BS EN 14792
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	CHP engine exhausts (new MCP) Burning syngas	95 mg/m^3	Periodic	Annually	BS EN 14792
	Carbon monoxide		No limit set	Periodic	Annually	BS EN 15058
A3 (Shown as point A3 on emission point plan in application EPR/TP3529LW/A001)	No parameters set	Emergency flare	No limit set	-	-	-

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Particulate matter	Pyrolyser burner exhaust stack burning syngas	30 mg/m^3	½-hr average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Particulate matter	Pyrolyser burner exhaust stack burning syngas	5 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Total Organic Carbon (TOC)	Pyrolyser burner exhaust stack burning syngas	20 mg/m^3	½-hr average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Total Organic Carbon (TOC)	Pyrolyser burner exhaust stack burning syngas	10 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Hydrogen chloride	Pyrolyser burner exhaust stack burning syngas	60 mg/m^3	½-hr average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Hydrogen chloride	Pyrolyser burner exhaust stack burning syngas	6 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Hydrogen fluoride	Pyrolyser burner exhaust stack burning syngas	1 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year of operation, then bi-annually	CEN TS 17340
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Carbon monoxide	Pyrolyser burner exhaust stack burning syngas	150 mg/m^3	95% of all 10-minute averages in any 24-hour period	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Carbon monoxide	Pyrolyser burner exhaust stack burning syngas	50 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Sulphur dioxide	Pyrolyser burner exhaust stack burning syngas	200 mg/m^3	½-hr average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Sulphur dioxide	Pyrolyser burner exhaust stack burning syngas	30 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Pyrolyser burner exhaust stack burning syngas	400 mg/m^3	½-hr average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Pyrolyser burner exhaust stack burning syngas	120 mg/m^3	daily average	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Cadmium & thallium and their compounds (total)	Pyrolyser burner exhaust stack burning syngas	0.02 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year of operation, then bi-annually	EN 14385
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Mercury and its compounds	Pyrolyser burner exhaust stack burning syngas	0.02 mg/m^3 Limit does not apply if continuous monitoring has been specified by the Environment Agency	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year and accelerated monitoring at frequency agreed through IC04, then Bi-annually. Not required if continuous monitoring has been specified by the Environment Agency	BS EN 13211
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Mercury and its compounds	Pyrolyser burner exhaust stack burning syngas	0.02 mg/m^3	Daily average	Continuous Not required unless continuous monitoring has been specified by the Environment Agency after completion of IC04 or if specified by the Environment Agency in line with sampling protocol	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	Pyrolyser burner exhaust stack burning syngas	0.3 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year of operation, then bi-annually	EN 14385
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Exhaust gas temperature	Pyrolyser burner exhaust stack burning syngas	No limit set	-	Continuous	Traceable to national standards
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Exhaust gas pressure	Pyrolyser burner exhaust stack burning syngas	No limit set	-	Continuous	Traceable to national standards
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Exhaust gas flow	Pyrolyser burner exhaust stack burning syngas	No limit set	-	Continuous	BS EN 16911-2
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Exhaust gas oxygen content	Pyrolyser burner exhaust stack burning syngas	No limit set	-	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Exhaust gas water vapour content	Pyrolyser burner exhaust stack burning syngas	No limit set	-	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Carbon dioxide	Pyrolyser burner exhaust stack burning syngas	No limit set	Continuous	Continuous	EN 14181
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Dioxins / furans (I-TEQ)	Pyrolyser burner exhaust stack burning syngas	0.04 ng/m^3 and 0.06 ng/m^3 if long term limit is specified by the Environment Agency after completion of IC03 or specified by the Environment Agency in line with sampling protocol	periodic over minimum 6 hours, maximum 8 hour period and value over sampling period of 2 to 4 weeks for long term sampling	Monthly for first 6 months and accelerated monitoring as agreed through IC03, quarterly for following 6 months and then bi-annually; and long term monitoring if specified by the Environment Agency after completion of IC03 or specified by the Environment Agency in line with sampling protocol	EN 1948 Parts 1, 2 and 3 and CEN TS 1948-5 if specified by the Environment Agency after completion of IC03 or specified by the Environment Agency in line with sampling protocol
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Dioxins / furans (WHO-TEQ Humans / Mammals, Fish, Birds)	Pyrolyser burner exhaust stack burning syngas	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year of operation, then bi-annually	EN 1948 Parts 1, 2 and 3
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Dioxin like PCBs (WHO-TEQ Humans / Mammals, Fish, Birds)	Pyrolyser burner exhaust stack burning syngas	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year of operation, then bi-annually	EN 1948 Parts 1, 2 and 3
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Polybrominated dibenzo-dioxins and furans	Pyrolyser burner exhaust stack burning syngas	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annually	Method based on procedural requirements of EN 1948
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				

Table S3.1 (b) Point source emissions to air – emission limits and monitoring requirements.						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard(s) or method(s)**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Pyrolyser burner exhaust stack burning syngas	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year then annually	BS ISO 11338 Parts 1 and 2.
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)		CHP engines exhausts burning syngas				
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Oxides of Nitrogen	Pyrolyser burner exhaust stack burning LPG	120 mg/m^3	Periodic	Annually	BS EN 14792
A3 (Shown as point A3 on emission point plan in application EPR/TP3529LW/A001)	No parameters set	Emergency flare	No limit set	-	-	-

Table S3.1(c) Point source emissions to air during abnormal operation – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 (Shown as point A1 on emission point plan in application EPR/TP3529LW/A001)	Particulate matter	Pyrolyser exhaust stack burning syngas	150 mg/m^3	½-hr average	Continuous	EN 14181 or alternative surrogate as agreed in writing with the environment agency during failure of the continuous emission monitor
	Total Organic Carbon (TOC)		20 mg/m^3	½-hr average		
	Carbon monoxide		150 mg/m^3	95% of all 10-minute averages in any 24-hour period		
A2a and A2b dual flue stack (Shown as point A2 on emission point plan in application EPR/TP3529LW/A001)	Particulate matter	CHP engine exhausts burning syngas	150 mg/m^3	½-hr average		
	Total Organic Carbon (TOC)		20 mg/m^3	½-hr average		
	Carbon monoxide		150 mg/m^3	95% of all 10-minute averages in any 24-hour period		

Note 1: certification to the MCERTS performance standards indicates compliance with BS EN 15267-3

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W1 (Shown as point W1 on emission point plan in application EPR/TP3529LW/A001)	Uncontaminated surface water run-off	No parameters set	No limits set	-	-	-

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Pyrolysis retort	Temperature	Continuous	As agreed with the Environment Agency as part of syngas protocol	As agreed with the Environment Agency as part of syngas protocol
Syngas cracking	Temperature	Continuous		
Syngas cleaning scrubber liquor	pH	Continuous		
	Flow rate	Continuous		
Syngas cleaning scrubber	Pressure drop	Continuous		
	Level detection and foaming	Continuous		
Syngas cleaning activated carbon filter	Pressure drop	Continuous		
Syngas quality	As agreed with the Environment Agency as part of syngas protocol	As agreed with the Environment Agency as part of syngas protocol		
Other equipment as agreed with the Environment Agency as part of syngas protocol	Other parameters as agreed with the Environment Agency as part of syngas protocol	As agreed with the Environment Agency as part of syngas protocol		

Table S3.4 Residue quality					
Emission point reference or source or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method ***	**Other specifications**
Pyrolysis char	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	-	Monthly in the first year of operation. Then Quarterly	Environment Agency web guidance 'Guidelines for ash sampling and analysis 16th September 2025'	-
Pyrolysis char	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	-	Before use of a new disposal or recycling route	Environment Agency web guidance 'Guidelines for ash sampling and analysis 16th September 2025'	-
Other pyrolysis residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	-	Monthly in the first year of operation. Then Quarterly	Environment Agency web guidance 'Guidelines for ash sampling and analysis 16th September 2025'	-

Table S3.4 Residue quality					
Emission point reference or source or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method ***	**Other specifications**
Other pyrolysis residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Environment Agency web guidance 'Guidelines for ash sampling and analysis 16th September 2025'	

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**
Point source emissions to air Parameters as required by condition 3.2.1 (a)	A1, A2a, A2b	Annually	1 January
Point source emissions to air Parameters as required by condition 3.3.2 (a)	A1, A2a, A2b	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
Process monitoring Parameters as required by conditions 3.2.1 (b) and 3.3.2 (b)	As specified in table S3.3	Quarterly for first 12 months of operation then bi-annually	1 Jan, 1 Apr, 1 Jul and 1 Oct
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.3.2 (c)	Pyrolysis char and residues	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.3.2 (c)	Pyrolysis char and residues	Before use of a new disposal or recycling route	-

Table S4.2: Annual production/treatment	
Parameter	**Units**
Waste pyrolysed	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Electricity generated and exported	Annually	MWh
LPG used	Annually	tonnes
Char produced	Annually	tonnes

Table S4.4 Reporting forms		
Parameter	**Reporting form**	**Form version number and date**
Point source emissions to air as required by condition 3.2.1(a)	Form Air 1 or other forms as agreed in writing by the Environment Agency	17/04/2026
Point source emissions to air Parameters as required by condition 3.3.2(a)	Forms Air 2 to Air 8 or other forms as agreed in writing by the Environment Agency	17/04/2026
Process monitoring Parameters as required by conditions 3.2.1 (b) and 3.3.2 (b)	Process Monitoring Form, or other form as agreed in writing by the Environment Agency	17/04/2026
Residues Parameters as required by condition 3.3.2 (c)	Form residue 1 and 2 or other form as agreed in writing by the Environment Agency	17/04/2026
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	17/04/2026

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	
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 breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
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.	

(d) 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

“abatement equipment” means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

“abnormal operation” means: any technically unavoidable stoppages, disturbances, or failures of the plant or the measurement devices. Abnormal operation starts as defined in condition 2.3.10 and ends as defined in condition 2.3.11. Abnormal operation is limited to 4 hours for a single occurrence and a total of 60 hours per year per line.

“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.

“CEM” Continuous emission monitor

“CEN” means Commité Européen de Normalisation

“bi-annually” means twice per year with at least five months between tests;

“Daily average emissions value means” the average of at least 43 valid half hourly averages or for CO the average of at least 43 valid half hourly averages or 129 valid 10 min averages’

“dioxin and furans” means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“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.

“ISO” means International Standards Organisation.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

“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.

“PAH” means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2,1-d)thiophene, Benzo[c]phenanthrene, Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenzo[ah]anthracene, Dibenzo[a,i]pyrene Fluoranthene, Indo[1,2,3-cd]pyrene, Naphthalene

“PCB” means Polychlorinated Biphenyl. Dioxin-like PCBs are the non-ortho and mono-ortho PCBs listed in the table below.

“Pests” means Birds, Vermin and Insects.

“Pyrolysis char” means solid residue left after pyrolysis of the waste feed

“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 the Waste Framework Directive.

“start up” is any period, where the plant has been non-operational, until waste has been fed to the plant in a sufficient quantity to initiate steady-state conditions as described in the application or agreed in writing with the Environment Agency.

“shut down” is any period where the plant is being returned to a non-operational state as described in the application or agreed in writing with the Environment Agency.

“Syngas protocol” means the protocol agreed in writing with the Environment Agency through pre-operational condition PO01 and improvement condition IC01 to demonstrate syngas meets the requirement of IED article 42(1) (it is purified to such an extent that it no longer a waste prior to incineration and it can cause emissions no higher than those resulting from the burning of natural gas)

“TOC” means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

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 emission limits and monitoring in table S3.1(a) from emission point A1 when burning LPG or syngas, 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.
- in relation to emission limits and monitoring in table S3.1(a), for emission points A2a and A2b when burning syngas, 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.
- in relation to emission limits and monitoring when burning syngas in table S3.1(b), the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry.

For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on: all congeners less than the

detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum. However the minimum value should be used when assessing compliance with the emission limit value in table S3.1.

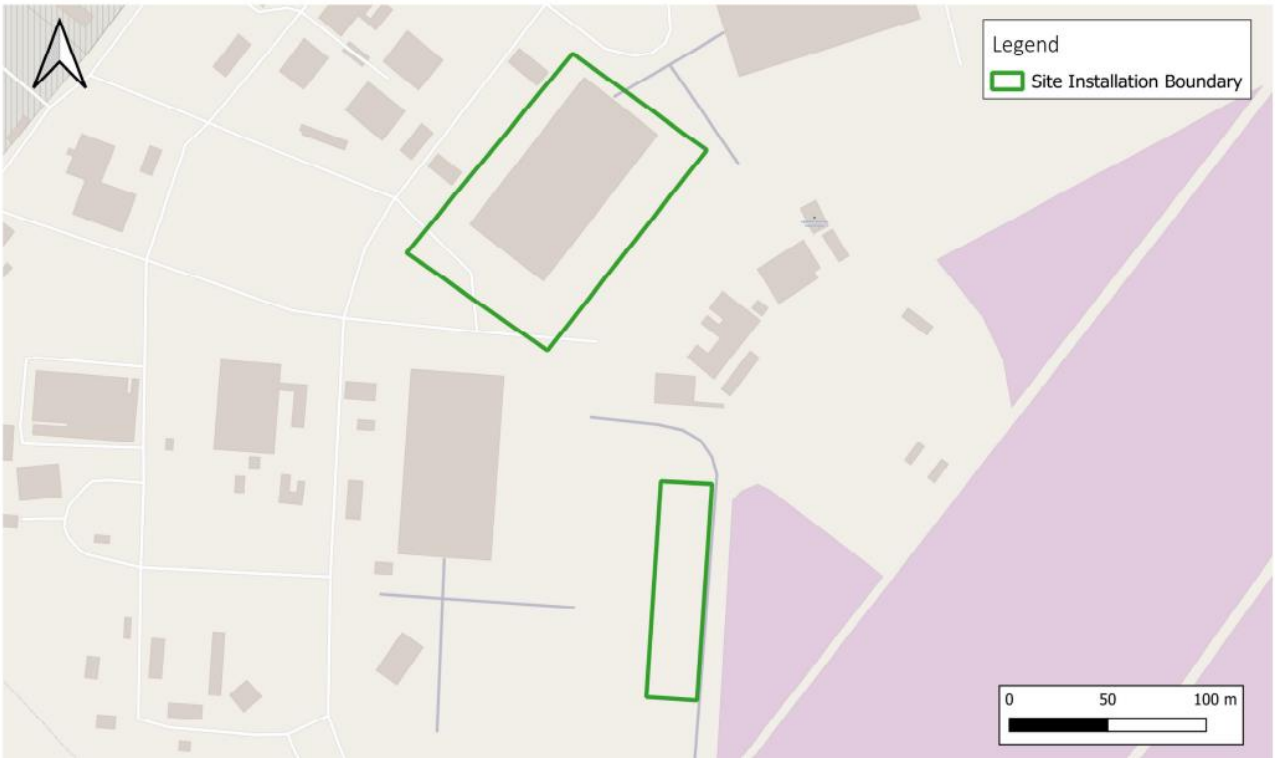
TEF schemes for dioxins and furans				
Congener	**I-TEF**	**WHO-TEF**		
	1990	**2005**	**1997/8**	
		Humans / Mammals	**Fish**	**Birds**
Dioxins				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0003	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8_HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0003	0.0001	0.0001

TEF schemes for dioxin-like PCBs			
Congener	**WHO-TEF**		
	2005	**1997/8**	
	Humans / mammals	**Fish**	**Birds**
Non-ortho PCBs			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0003	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.03	0.00005	0.001
Mono-ortho PCBs			
2,3,3',4,4'-PeCB (105)	0.00003	<0.000005	0.0001

TEF schemes for dioxin-like PCBs			
Congener	**WHO-TEF**		
	2005	**1997/8**	
	Humans / mammals	**Fish**	**Birds**
2,3,4,4',5-PeCB (114)	0.00003	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.00003	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.00003	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.00003	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.000005	0.00001

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



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