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Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Port Clarence Energy Limited

Teesside Renewable Energy Plant Land at Clarence Works off Port Clarence Road Port Clarence Stockton on Tees TS2 1TT

Variation application number

EPR/MP3333WX/V004

Permit number

EPR/MP3333WX

Teesside Renewable Energy Plant Permit number EPR/MP3333WX

Introductory note

This introductory note does not form a part of the notice

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

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The installation is not currently operational. This variation incorporates the following changes to the permit:

- Operation as an incineration plant, incinerating refuse derived fuel (RDF) to generate electricity.
- Additional EWC codes to allow RDF to be used as a fuel.
- Modifications to the fuel handling and storage arrangements to facilitate processing RDF.
- De-rating the boiler and reduced maximum capacity due to processing of RDF.
- Modifications to the boiler and combustion control settings and flue gas cleaning system to facilitate processing RDF.
- Modifications to ash handling systems.
- Change of operator's registered office from Eversheds House, 70 Great Bridgewater Street,
 Manchester, M1 5ES to Blyth House Cresswell Lane, Cresswell, Stoke-On-Trent, ST11 9RD.
- NGR reference (451021,521767) in site address replaced by postcode (TS2 1TT).

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application EPR/MP3333WX/A001	Duly made 20/10/2014	
Schedule 5 notice response	11/03/2015	
Permit EPR/MP3333WX determined	05/05/2015	Permit issued to Port Clarence Energy Limited
Application EPR/MP3333WX/V002 (variation and consolidation)	Duly made 08/01/2016	
Variation determined EPR/MP3333WX/V002	24/03/2016	Variation amends compliance limits for ammonia, removes the point source emission to sewer and incorporates changes to site layout and stack height.
Application EPR/MP3333WX/V004	Duly Made 09/03/2023	Application to change from waste co-incinerator to waste incinerator using RDF as fuel. Additional

Status log of the permit			
Description Date		Comments	
		waste (EWC) codes added and modifications to the following: • Fuel handling and storage arrangements. • Boiler and combustion control settings. • Ash handling systems. Originally logged in error as V003.	
Schedule 5 Notice Response	Received 19/06/2023	Re-assessment of nutrient nitrogen deposition on European sites.	
Schedule 5 Notice Response	Received 11/08/2023	Updated contact details, updated registered office (admin variation) and odour management plan	
Additional Information Received	17/08/2023 18/08/2023	Updated application forms Part A and Part F1	
Additional Information	19/08/2023	Updated director details	
Schedule 5 Notice Response	Received 23/10/2023	Updated odour management plan	
Variation determined and consolidated permit issued EPR/MP3333WX	20/12/2023	Varied and consolidated permit issued in modern format	

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

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

Permit number

EPR/MP3333WX

Issued to

Port Clarence Energy Limited ("the operator")

whose registered office is

Blyth House Cresswell Lane Cresswell Stoke-On-Trent ST11 9RD

company registration number 08790013

to operate a regulated facility at

Teesside Renewable Energy Plant Land at Clarence Works off Port Clarence Road Port Clarence Stockton on Tees TS2 1TT

to the extent set out in the schedules.

The notice shall take effect from 20/12/2023.

Name	Date
Marcus Woodward	20/12/2023

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of an Environment Agency initiated variation:

- Table S4.4, as referenced by conditions 4.2.2 and 4.2.3 is amended to include updated reporting forms.
- Schedule 6, as referenced by condition 4.4.1 is amended to include updated definitions.

The following conditions were varied as a result of the application made by the operator:

- Condition 2.3.10 is amended to remove reference to co-incinerator
- Condition 3.2.4 is amended to include updated pre-operational condition information.
- Table S1.1, as referenced by condition 2.1.1, is amended to update activity descriptions.
- Table S1.2, as referenced by condition 2.3.1, is amended to include additional operating techniques.
- Table S1.4, as referenced by conditions 2.5.1 and 3.2.4, is amended to update and include additional pre-operational conditions.
- Table S2.2, as referenced by condition 2.3.3 is amended to include additional waste (EWC) codes.
- Table S3.1, as referenced by conditions 2.3.6, 3.1.1, 3.5.1, 3.5.3, 3.5.4 and 3.5.5 is amended to add a point source emission to air and updated emission limit values.
- Table S3.2, as referenced by conditions 3.1.1 and 3.5.1, is amended to update drawing reference number.
- Table \$3.3, as referenced by condition 3.5.1, is amended to update drawing reference number.
- Table S4.1, as referenced by condition 4.2.3, is amended to update drawing reference number.
- Table S4.2, as referenced by condition 4.2.2, is amended to remove reference to waste wood.

The following conditions are deleted as a result of the application made by the operator:

• Condition 3.3.2

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/MP3333WX

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/MP3333WX/V004 authorising,

Port Clarence Energy Limited ("the operator"),

whose registered office is

Blyth House Cresswell Lane Cresswell Stoke-On-Trent ST11 9RD

company registration number 08790013

to operate an installation at

Teesside Renewable Energy Plant Land at Clarence Works off Port Clarence Road Port Clarence Stockton on Tees TS2 1TT

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

Name	Date
Marcus Woodward	20/12/2023

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 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.
- 1.2.2 The operator shall provide and maintain steam and/or hot water pass-outs such that opportunities for the further use of waste heat may be capitalised upon should they become practicable.
- 1.2.3 The operator shall review the practicability of Combined Heat and Power (CHP) implementation at least every 2 years. The results shall be reported to the Agency within 2 months of each review.

1.3 Efficient use of raw materials

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

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

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

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 in condition 2.3.3 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 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
 - (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit 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.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

- 2.3.3 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.
 - (c) it having been separately collected for recycling, it is subsequently unsuitable for recovery by recycling.
- 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 Waste fuel shall not be charged, or shall cease to be charged, if:
 - (a) the combustion chamber temperature is below, or falls below, 850°C or
 - (b) any continuous emission limit value in schedule 3 table S3.1 is exceeded, other than under abnormal operating conditions; or
 - (c) monitoring results required to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 are unavailable other than under 'abnormal operating' conditions.
- 2.3.7 The operator shall have at least one auxiliary burner in each line at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.6, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.6 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.8 The operator shall record the beginning and end of each period of "abnormal operation".
- 2.3.9 During a period of "abnormal operation", the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.
- 2.3.10 Where, during "abnormal operation", on an incineration line any of the following situations arise, waste shall cease to be charged on that line until normal operation can be restored:
 - (a) continuous emission monitor(s) are out of service, for a total of 4 hours uninterrupted duration;
 - (b) the cumulative duration of "abnormal operation" periods over 1 calendar year has reached 60 hours.
- 2.3.11 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 fuel combustion activity, as described in the application or as agreed in writing with the Environment Agency;
 - (c) when a period of four hours has elapsed from the start of the "abnormal operation";
 - (d) when, in any calendar year, an aggregated period of 60 hours "abnormal operation" has been reached.
- 2.3.12 Bottom ash and APC residues shall not be mixed.

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 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.

3.2 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.
- 3.2.4 The Operator shall carry out monitoring of groundwater in accordance with IED articles 14(1)(b), 14(1)(e) and 16(2) to the protocol approved in writing with the Environment Agency under PO8 in Table S1.4.

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.

3.4 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; and
 - (c) residue quality in table S3.4.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) 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 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.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 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) 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:

•	Carbon monoxide	10%
•	Sulphur dioxide	20%
•	Oxides of nitrogen (NO & NO2 expressed as NO2)	20%
•	Particulate matter	30%
•	Total organic carbon (TOC)	30%
•	Hydrogen chloride	40%
•	Ammonia	40%

- (b) valid half-hourly average values 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 3.5.5 (a);
- (c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average shall in any case be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period The number of half-hourly averages so validated shall not exceed 5 per day;
- (d) daily average values shall be determined as the average of all the valid half-hourly average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly 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.

4 Information

4.1 Records

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

4.2 Reporting

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

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
 - (d) 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.

4.3 Notifications

- 4.3.1 The Operator shall
 - in the event 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) in the event 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) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (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

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
S5.1 A1 (b)	The incineration of non-hazardous waste in a waste incineration plant with a capacity of 3 tonnes per hour or more.	From receipt of waste to emission of exhaust gas and disposal of waste arising. Waste types and quantities as specified in Table S2.2 of this permit.
Directly Associated Activities		
Electricity Generation	Generation of approximately 28.9MWe net electrical power using a steam turbine from energy recovered from the flue gases.	
Back up electrical generator	For providing emergency electrical power to the plant in the event of supply interruption.	

Table S1.2 Operating	techniques	
Description	Parts	Date Received
Application	Operating techniques described in the: Response to question 3 on application form B3. Supporting Information: Section 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10.	Duly Made 20 th October 2014
	Annex 4 Annex 7	
Response to Schedule 5 Notice dated 09/02/2015	All Parts.	11 th March 2015
Variation application EPR/MP3333WX/V002	Response to question 3 on application form C3. Supporting Information: Non technical summary, Appendix A&B.	9 th November 2015
Additional Information in support of application EPR/MP3333WX/V002	Site Plan & information on layout changes received via email.	16 th February 2016
Variation application EPR/MP3333WX/V004	Response to question 3 on application form C3. Operating techniques described in the:	Duly Made 9 th March 2023
	Supporting Information: All parts Operating techniques: All parts Fire Prevention Plan: All parts	
Response to Schedule 5 Notice dated 26/07/2023	Response to Question 1	11 th August 2023
Response to Schedule 5 Notice dated 26/07/2023	Odour Management Plan: All parts	23 rd October 2023

Table S1.3	Improvement programme requirements	
Reference	Requirement	Date
IC1	The Operator shall submit a written report to the Environment Agency on the implementation of its Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.	Within 12 months of the date on which waste is first burnt.
IC2	The Operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1, identifying the fractions within the PM ₁₀ , and PM _{2.5} ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out such tests and produce a report on the results. On receipt of written agreement by the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report on the results.	Within 6 months of the completion of commissioning.
IC3	The Operator shall submit a written report to the Environment Agency on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the completion of commissioning.
IC4	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to the Environment Agency.	Within 4 months of the completion of commissioning.
IC5	The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NO $_x$) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO $_x$ and N $_2$ O emissions that can be achieved under optimum operating conditions. The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins.	Within 4 months of the completion of commissioning.
IC6	The Operator shall submit a written summary report to the Agency to confirm by the results of calibration and verification testing that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.	Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning.
		Full summary evidence compliance report to be submitted within 18 months of commissioning.

Table S1.3	Table S1.3 Improvement programme requirements		
Reference	Requirement	Date	
IC7	The Operator shall carry out an assessment of the impact of emissions to air of the following component metal subject to emission limit values:	15 months from commencement of operations	
	Chromium		
	A report on the assessment shall be made to the Environment Agency.		
	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 the metal against the relevant EQS/EAL. In the event that the assessment shows that an EQS/EAL can be exceeded, the report shall include proposals for further investigative work.		

Table S1.4 Pro	e-operational measures
Reference	Pre-operational measures
PO1	Prior to the commencement of commissioning, the Operator shall send a summary of the site Environment Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS. The EMS shall be developed in line with the requirements set out in Section 1 of How to comply with your environmental permit – Getting the basics right. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.
PO3	Prior to the commencement of commissioning, the Operator shall send a report to the Environment Agency which will contain a comprehensive review of the options available for utilising the heat generated by the waste incineration process in order to ensure that it is recovered as far as practicable. The review shall detail any identified proposals for improving the recovery and utilisation of waste heat and shall provide a timetable for their implementation.
PO4	Prior to the commencement of commissioning, the Operator shall submit to the Environment Agency for approval a protocol for the sampling and testing of incinerator bottom ash for the purposes of assessing its hazard status. Sampling and testing shall be carried out in accordance with the protocol as approved.
PO5	Prior to the commencement of commissioning; the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO6	Prior to the commencement of commissioning, the Operator shall submit a written report to the Agency detailing the waste acceptance procedure to be used at the site. The waste acceptance procedure shall include the process and systems by which wastes unsuitable for incineration at the site will be controlled. The procedure shall be implemented in accordance with the written approval from the Agency.
PO7	After completion of furnace design and at least three calendar months before any furnace operation; the operator shall submit a written report to the Agency of the details of the computational fluid dynamic (CFD) modelling. The report shall demonstrate whether the design combustion conditions comply with the residence time and temperature requirements as defined by the Industrial Emissions Directive.

Table S1.4 Pre	e-operational measures
Reference	Pre-operational measures
PO8	The Operator shall submit the written protocol referenced in condition 3.2.4 for the monitoring of soil and groundwater for approval by the Environment Agency. The protocol shall demonstrate how the Operator will meet the requirements of Articles 14(1)(b), 14(1)(e) and 16(2) of the IED. The procedure shall be implemented in accordance with the written approval from the Agency.
PO10	At least three months before operation, the Operator shall submit a written report to the Environment Agency specifying arrangements for continuous and periodic monitoring of emissions to air to comply with Environment Agency guidance notes M1 and M2. The report shall include the following:
	Plant and equipment details, including accreditation to MCERTS Matheda and standards for compling and applicate.
	Methods and standards for sampling and analysis Potable of manifesting leastings access and weaking platforms.
PO11	Details of monitoring locations, access and working platforms At least 3 months prior to the acceptance of ammonia or urea on site the Operator shall submit to the Environment Agency for approval their proposed operating techniques for the delivery, receipt, storage and handling of ammonia or urea. The proposals shall be written in accordance with relevant Environment Agency guidance.
PO13	Prior to the commencement of any activities authorised by the permit the operator shall submit to the Environment Agency for approval (using the form provided by the Environment Agency) a report that addresses compliance with each BAT conclusion listed in the Waste Incineration BAT Conclusions (Commission Implementing Decision (EU) 2019/2010 of 12 November 2019). The report shall include:
	 i. A list of any BAT conclusions that are not relevant, including justification. ii. A description of how the installation complies with the standards set out in each relevant BAT conclusion. The permitted activities shall only commence once the operator has obtained the Environment Agency's written approval to the report and the Environment Agency has issued a variation notice to implement BAT standards.
PO14	Prior to commissioning of the energy from waste plant the operator shall submit a written updated fire prevention plan to the Environment Agency for assessment and written approval.
	The plan must contain: Detailed designs of the systems for the provision of firewater Detailed designs of the systems for the containment of firewater
	The proposals in the plan shall be implemented in accordance with that agreed with the Environment Agency.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels		
Raw materials and fuel description	Specification	
Fuel Oil	< 0.1% sulphur content	

Maximum quantity	333,000 tonnes per annum
Waste code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 07	Wastes from forestry
02 01 09	Agrochemical waste other than those mentioned in 02 01 08
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBAORD.
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 01	Waste bark and wood
03 03 08	Waste from sorting of paper and cardboard destined for recycling
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 02	Wastes from the textile industry
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	Wastes from the photographic industry
09 01 08	Photographic film and paper free of silver or silver compounds
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wooden packaging
15 01 05	Composite packaging
15 01 06	Mixed packaging
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 02	Wood, glass and plastic
17 02 01	Wood
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 wastes (for example sorting, crushing, compacting, pelletising) not otherwise specified

Table S2.2 Permitted waste types and quantities for incineration plant				
Maximum quantity	333,000 tonnes per annum			
Waste code	Description			
19 12 01	Paper and cardboard			
19 12 04	Plastic and rubber			
19 12 07	Wood other than that mentioned in 19 12 06			
19 12 08	Textiles			
19 12 10	Combustible wastes (refuse derived fuel)			
19 12 12	Other waste (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11			
20	MUNICIPAL WASTES (HOUSEHOLD WASTE OR SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS.			
20 01	Separately collected fractions			
20 01 01	Paper and cardboard			
20 01 11	Textiles			
20 01 38	Wood other than that mentioned in 20 01 37			
20 01 39	Plastics			
20 03	Other municipal wastes			
20 03 01	Mixed municipal waste			

Schedule 3 – Emissions and monitoring

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown drawing no.	Particulate matter	Exhaust gases	10 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
S3740-8310- 0002.		following treatment — by the air pollution control	30 mg/m ³	½-hr average	Continuous	EN 14181
	Total Organic Carbon (TOC)		10 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
		system	20 mg/m ³	½-hr average	Continuous	EN 14181
	Hydrogen chloride	_	10 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
			60 mg/m ³	½-hr average	Continuous	EN 14181
	Hydrogen fluoride		1 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
			4 mg/m ³	½-hr average	Continuous	EN 14181
	Carbon monoxide	_	50 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
			150 mg/m ³	95% of all 10-minute averages in any 24- hour period	Continuous	EN 14181
	Sulphur dioxide	_	50 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3
			200 mg/m ³	½-hr average	Continuous	EN 14181
	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	_	200 mg/m ³	daily average	Continuous	BS EN 14181 and BS EN 15267-3

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)		400 mg/m ³	½-hr average	Continuous	EN 14181
	Cadmium & thallium and their compounds (total)	_	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 14385
	Mercury and its compounds	_	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 13211
	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	_	0.5 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 14385
	Ammonia (NH ₃)	_	10 mg/m ³	daily average	Continuous measurement	BS EN 14181
			7 mg/m ³	Monthly average	-	
	Nitrous oxide (N ₂ O)	_	-	daily average	Continuous measurement	BS EN 14181
	Dioxins / furans (I-TEQ)	_	0.1 ng/m ³	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948 Parts 1, 2 and 3
	Dioxins / furans (WHO-TEQ Humans / Mammals)	_	-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948 Parts 1, 2 and 3
	Dioxins / furans (WHO-TEQ Fish)	_	-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948 Parts 1, 2 and 3
	Dioxins / furans (WHO-TEQ Birds)	_	-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948 Parts 1, 2 and 3
	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	_	-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948-4

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Dioxin-like PCBs (WHO-TEQ Fish)		-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948-4
	Dioxin-like PCBs (WHO-TEQ Birds)		-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	BS EN 1948-4
	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.		-	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Biannual	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.
Exhaust on Standby Generator location as agreed in writing with the Environment Agency.	No parameters set	Exhaust emissions from standby generators	No limit set	-	-	-
A2 as shown drawing no. S3740-8310-0002.	No parameters set	Odour abatement stack	No limit set	-	-	-

	Point Source monitoring red Parameter	emissions to wa quirements Source	Limit (incl. unit)	Reference Period	and land – en Monitoring frequency	Monitoring standard or method
W1 as shown on drawing no. S3740- 8310-0002.	No parameters set	Uncontaminated Surface water	No limit set	-	-	-

Table S3.3 Process mo	nitoring requir	ements		
Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
As identified in the Application	Wind Speed and Direction	Continuous	Anemometer	
Location close to the Combustion Chamber inner wall or as identified and justified in Application.	Temperature (°C)	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 as shown drawing no. S3740-8310-0002.	Exhaust gas temperature	Continuous	Traceable to national standards	As agreed in writing with the Agency.
	Exhaust gas pressure	Continuous	Traceable to national standards	As agreed in writing with the Agency.
	Exhaust gas oxygen content	Continuous	BS EN 15267-3 BS EN 14181	

Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method *	Other specifications
Bottom Ash	TOC	<3%	Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'.	
Bottom Ash	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 Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'.	
Bottom Ash	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 Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'.	
APC 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 Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'.	
APC 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 Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'.	

^{*} Or other equivalent standard as agreed in writing with the Environment Agency.

Schedule 4 - Reporting

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

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1	A1 as shown drawing no. S3740-8310-0002.	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
TOC Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	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 3.5.1	Bottom Ash	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 3.5.1	Bottom Ash	Before use of a new disposal or recycling route	
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 3.5.1	APC 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 3.5.1	APC Residues	Before use of a new disposal or recycling route	
Functioning and monitoring of the incineration plant as required by condition 4.2.2		Annually	1 Jan

Table S4.2: Annual production/treatment				
Parameter	Units			
Total waste incinerated	tonnes			
Electrical energy produced	KWhrs			
Thermal energy produced e.g. steam for export	kWhrs			
Electrical energy exported	kWhrs			

Table S4.2: Annual production/treatment				
Parameter	Units			
Electrical energy used on installation	kWhrs			
Waste heat utilised by the installation	kWhrs			

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Electrical energy exported, imported and used at the installation	Quarterly	kWhrs / tonne of waste incinerated
Fuel oil consumption	Quarterly	Kgs / tonne of waste incinerated
Mass of Bottom Ash produced	Quarterly	Kgs / tonne of waste incinerated
Mass of APC residues produced	Quarterly	Kgs / tonne of waste incinerated
Mass of Other solid residues produced	Quarterly	Kgs / tonne of waste incinerated
Ammonia / Urea consumption	Quarterly	Kgs / tonne of waste incinerated
Activated Carbon consumption	Quarterly	Kgs / tonne of waste incinerated
Lime consumption	Quarterly	Kgs / tonne of waste incinerated
Water consumption	Quarterly	Kgs / tonne of waste incinerated
Periods of abnormal operation	Quarterly	No of occasions and cumulative hours for current calendar year for each line.

Table S4.4 Reporting forms			
Media/parameter	Reporting format	Date of form	
Air	Form air 1-9 or other form as agreed in writing by the Environment Agency	24/04/2015	
Residues	Form residues 1 or other form as agreed in writing by the Environment Agency	24/04/2015	
Energy Usage	Form energy 1 or other form as agreed in writing by the Environment Agency	24/04/2015	
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	24/04/2015	

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 EΡ

by an application for com Regulations.	mercial confidentiality under the provisions of the E
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 substa	nce not controlled by an emission limit which has caused, is
causing or may cause significant	pollution
To b	e 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	tion of a breach of a limit
Parameter	Notification period
(c) Notification requirements for the detection	on of any significant adverse environmental effec
To be notified	vithin 24 hours of detection

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

Part B - to be submitted as soon as practicable

i all D - 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 measurement devices during which the emissions into the air and the discharges of waste water may exceed the prescribed emission limit values

"accident" means an accident that may result in pollution.

"APC residues" means air pollution control residues

"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.

"bi-annual" means twice per year with at least five months between tests;

"bottom ash" means [ash falling through the grate or transported by the grate;

"CEM" Continuous emission monitor

"CEN" means Commité Européen de Normalisation

"daily average" for releases of substances to air means the average of valid half-hourly averages over a calendar dayduring normal operation.

"dioxin and furans" means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.

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

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

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

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

'Hazardous property' has the meaning in Annex III of the Waste Framework Directive

'Hazardous waste' has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended)

"incineration line" means all of the incineration equipment related to a common discharge to air location.

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

"infectious clinical waste" means clinical waste incorporating substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms

"ISO" means International Standards Organisation.

"LOI" means loss on ignition a technique used to determine the combustible material by heating the ash residue to a high temperature

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

'monthly average' – for releases of substances to air shall be taken as the sum of the valid daily averages over a calendar month divided by the number of days in that calendar month during normal operation.

"PAH" means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]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.

"quarterly" for reporting/sampling means after/during each 3 month period, January to March; April to June; July to September and October to December and, when sampling, with at least 2 months between each sampling date.

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

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

"shut down" is any period where the plant is being returned to a non-operational state and there is no waste being burned as described in the application or agreed in writing with the Environment Agency.

"start up" is any period, where the plant has been non-operational, after igniting the auxiliary burner until waste fuel has been fed to the plant in sufficient quantity to cover the grate and to initiate steady-state conditions as described in the application or agreed in writing with the Environment Agency.

"TOC" means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC. In respect of Bottom Ash, this means the total carbon content of all organic species present in the ash (excluding carbon in elemental form).

'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

"year" means calendar year ending 31 December.

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

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

(a) in relation to gases from incineration plants other than those burning waste oil, 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 then 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 /	Fish	Birds
		Mammals		

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

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	<0.0000 05	0.0001	
2,3,4,4',5-PeCB (114)	0.00003	<0.0000 05	0.0001	
2,3',4,4',5-PeCB (118)	0.00003	<0.0000 05	0.00001	
2',3,4,4',5-PeCB (123)	0.00003	<0.0000 05	0.00001	
2,3,3',4,4',5-HxCB (156)	0.00003	<0.0000 05	0.0001	
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.0000 05	0.0001	
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.0000 05	0.00001	
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.0000 05	0.00001	

Schedule 7 – Site Plan

