Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Cyclerval (UK) Limited

Exeter EfW
Grace Road South
Marsh Barton
Exeter
Devon
EX2 8QE

Variation application number

EPR/HP3538CR/V003

Permit number

EPR/HP3538CR

Exeter EfW
Permit number EPR/HP3538CR

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.

This variation has been issued to update the permit following a statutory review of the permits in the industry sector for incineration. The opportunity has also been taken to consolidate the original permit and subsequent variations. The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) conclusions as described in the Commission Implementing Decision. The BAT conclusions for incineration were published on 03 December 2019 in the Official Journal of the European Union (L323) following a European Union wide review of BAT, implementing decision 2017/2117/EU of 21 November 2017.

The schedules specify the changes made to the 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. All the conditions of the permit have been varied and are subject to the right of appeal.

Brief description of the process

This permit controls the operation of a waste incineration plant. The relevant listed activity is 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'. The permit implements the requirements of the EU Directives on Industrial Emissions and Waste.

The main features of the permit are as follows:

This installation is an incinerator for municipal waste arising from the Exeter area operated by Cyclerval (UK) Limited. Commissioned 28 July 2014, it is situated at the Marsh Barton Trading Estate and is adjacent to the Exeter / Torquay railway line, located at National Grid Reference SX 92624 90505. There is one discharge to air (A1) one discharge to sewer (S1) and one indirect discharge to water (W1). S1 takes the non-continuous discharge from boiler blow-down to sewer and W1 discharges uncontaminated surface run-off from within the installation to the external storm water drainage system.

The facility has a maximum design capacity of 60,000 tonnes per annum (this equates to a maximum average capacity of 7.5 tonnes / hour at a calorific value of 9.3 MJ/kg net) of non-hazardous municipal solid waste utilising the oscillating kiln technology. The heat arising from incineration is used to generate electricity. All exhaust gases generated by the incineration process are treated on site using Selective Non-Catalytic Reduction (SNCR), to remove pollutants to below emission limits set by the Waste incineration Directive.

The plant uses light fuel oil (gas oil) as the support fuel for the incineration process during start up, shut down and any combustion temperature maintenance requirements associated with the operation of the plant. The storage of this fuel oil is provided by a 50,000 litre above ground integrally bunded fuel oil storage tank at the site.

Within 10km of the Exeter EfW installation is one European designated area – the Exeter Special Protection Area (SPA) and Ramsar. This is also classed as a Site of Special Scientific Interest (SSSI).

In close proximity to the installation are the river Exe, the Alphin Brook and the Exeter Canal. The installation is within the river Exe flood plain and the operator installed suitable flood defence measures prior to commencement of operations.

Releases to air are from the 65m high chimney and meet the requirements of the Industrial Emissions Directive (also taking into account the subsequent variations detailed below). Conditions delivering the

corresponding requirements of the relevant chapters of the Industrial Emissions Directive have been incorporated into this Permit.

The permit review completed in May 2022, brings the permit up to date with the requirements of the BAT conclusion document, published 03 December 2019.

Furnace technology	Oscillating Kiln
Number of lines	1
Principal waste type	Municipal
Stack height	65m
Permitted plant capacity	60,000 tonnes per year
Electrical generation capacity	3.14 MWe

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/PP3234UG/A001	Duly made 20/06/2007	
Additional Information request by Schedule 4 notice	Issued 17/10/2007	14/11/2007
Modelling information request	04/10/2007	24/10/2007
Further information provided regarding removal of flue gas treatment bypass	14/11/2007	
Additional information on critical load modelling	30/11/2007	03/01/2008
Additional information on noise assessment	04/12/2007	
Additional Information request by Schedule 4 notice	Issued 16/01/2008, 11/06/2008, 22/07/2008 and 26/08/2008	28/02/2008, 27/06/2008, 22/08/2008 and 27/08/2008
Further information regarding energy export and conversion	23/09/2009	
Permit PP3234UG determined	Issued 30/11/2009	Original permit issued to Viridor Waste Management Limited.

Status log of the permit		
Description	**Date**	**Comments**
Variation Application EPR/PP3234UG/V002	Duly Made 14/07/2010	Variation to enable a higher thermal capacity combustor/boiler unit to be incorporated into the design of the plant.
Variation Notice EPR/PP3234UG/V002 issued	Issued 28/09/2010	
Application EPR/HP3538CR/T001 full transfer of permit EPR/PP3234UG	Duly Made 05/03/2012	Application to transfer the permit in full to Cyclerval (UK) Limited
Transfer determined EPR/HP3538CR	Issued 27/03/2012	Full transfer of permit complete.
Variation Application EPR/HP3538CR/V002	Duly Made 28/02/2013	Variation to change support fuel from natural gas to light fuel oil and install fuel storage tank.
Schedule 5 information request regarding containment measures and drainage interceptor arrangements	15/04/2013	26/04/2013
Variation EPR/HP3538CR/V002 determined	Issued 13/06/2013	Variation with Consolidation Notice issued
Permit review EPR/HP3538CR/V003	Environment Agency Initiated variation	Statutory review of permit. BAT Conclusions published 03 December 2019.
Variation determined EPR/HP3538CR/V003	10/05/2022	

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/HP3538CR

Issued to

Cyclerval (UK) Limited ("the operator")

whose registered office is

Integrated Waste Management Facility
South Marsh Road
Stallingborough
Ne Lincolnshire
England
DN41 8BZ

company registration number 03277413

to operate a regulated facility at

Exeter EfW
Grace Road South
Marsh Barton
Exeter
Devon
EX2 8QE

to the extent set out in the schedules.

The notice shall take effect from 10/05/2022

Name	Date
Sandra Cavill	**10/05/2022**

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/HP3538CR

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/HP3538CR/V003 authorising,

Cyclerval (UK) Limited ("the operator"),

whose registered office is

Integrated Waste Management Facility
South Marsh Road
Stallingborough
Ne Lincolnshire
England
DN41 8BZ

company registration number 03277413

to operate an installation at

Exeter EfW
Grace Road South
Marsh Barton
Exeter
Devon
EX2 8QE

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

Name	Date
Sandra Cavill	**10/05/2022**

Authorised on behalf of the Environment Agency

Conditions

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) referenced in schedule 1, table S1.1, Activity AR1, from 03/12/2023, in accordance with a written other than normal operating conditions (OTNOC) management plan.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 The operator shall review the written management system at least every 3 years or otherwise as requested by the Environment Agency.

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

(a) new plans for significant developments within 15 km of the installation;

(b) changes to the Local Plan;

(c) changes to the UK CHP Development Map or similar; and

(d) new financial or fiscal incentives for CHP.

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

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

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

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

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

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 red 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 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 or holder.

2.3.5 Wastepaper, metal, plastic, or glass that has been separately collected for the purpose of preparing for re-use or recycling shall not be accepted. Waste from the treatment of these separately collected wastes shall only be accepted if incineration delivers the best environmental outcome in accordance with regulation 12 of the Waste (England and Wales) Regulations 2011.

2.3.6 Separately collected fractions other than those listed in condition 2.3.5 shall not be accepted unless they are unsuitable for recovery by recycling.

2.3.7 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.

2.3.8 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.

2.3.9 Waste shall not be charged if:

(a) the combustion chamber temperature is below 850 ^{o}C,

(b) any continuous emission limit value in schedule 3 table S3.1(a) is exceeded; or

(c) any continuous emission limit value in schedule 3 table S3.1 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 are unavailable other than during abnormal operation; or

(e) there is a stoppage, disturbance or failure of the activated carbon abatement system, other than during abnormal operation; or

(f) 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 detailed in the application or] as agreed in writing with the Environment Agency, are used to demonstrate compliance with those emission limit values.

2.3.10 The operator shall record the beginning and end of each period of “abnormal operation”.

2.3.11 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.

2.3.12 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) a technically unavoidable stoppage, disturbance, or failure of the activated carbon abatement system

(c) 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.

2.3.13 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 an incineration line

(d) Abnormal operation occurs on an incineration line and the cumulative duration of abnormal operation periods over 1 calendar year has reached 60 hours on that incineration line;

2.3.14 The operator shall have at least one auxiliary burner in each line which shall be operated at start up, shut down and as required during operation to ensure that the operating temperature specified in condition 2.3.9 is maintained as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.9 is maintained in the combustion chamber, such burner(s) shall 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.

2.3.15 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, S3.1(a), S3.2 and S3.3.

3.1.2 The limits given in schedule 3, subject to condition 3.2.1, 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 S 3.5. 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 limits and monitoring for emission to air for incineration plant

3.2.1 The limits for emissions to air apply as follows:

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

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

3.2.2 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1 and S3.1(a); 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 3.2.2 (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 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 follows:

(i) for the daily average values in table S3.1, the average of valid half hourly averages or 10 minute averages over a 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 Emissions of substances not controlled by emission limits

3.3.1 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.

3.3.2 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.

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

3.3.4 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.

3.4 Odour

3.4.1 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.

3.5 Noise and vibration

3.5.1 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.

3.5.2 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.

3.6 Monitoring

3.6.1 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, S3.1(a), S3.2 and S3.3;

(b) process monitoring specified in table S3.4;

(c) residue quality in table S3.5

3.6.2 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.

3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.6.1 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 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.

3.6.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.1(a), S3.2 andS3.3 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.

3.8.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;

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

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 For the following activities referenced in schedule 1, table S1.1; AR1, 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 using the annual report form specified in schedule 4, table S4.4 or otherwise in a format agreed with the Environment Agency. 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;

(c) the performance parameters set out in schedule 4 table S4.3

(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 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately:

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately:

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

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

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule..

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

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

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "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
AR1	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 removal from site of waste arising. Waste types and quantities as specified in Table S2.2 of this permit.
	Directly Associated Activities		
AR2	Electricity Generation	Generation of approximately 3.14 MWe electrical power using a steam turbine from energy recovered from the flue gases.	
AR3	Back up electrical generator	For providing emergency electrical power to the plant in the event of supply interruption.	Emergency use to a maximum of 500 hours operation per year. Maximum of 50 hours testing per year.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to section B2.1 and B2.2 in the application.	20/06/2007
Application	The responses provided in sections 1 – 13 of Appendix A (Supporting Information) of the application.	20/06/2007
Schedule 4 Notice Request dated 17/10/07	Response to question 3, 5, 6, 7, 8, 10 & 11 regarding delivery of raw materials, bottom ash, odours when not operating, use of CEM data, control of NOx and lime feed.	14/11/2007
Additional information supplied 14/11/07	Information confirming removal of bag filter bypass facility from plant operation.	14/11/2007
Variation application EPR/PP324UG/V002	The responses provided in Section 2, Section 3 and Figure 1 of the supplementary information in the application.	14/07/2010
Variation application EPR/HP3538CR/V002	The supplementary information provided in response to question 3 of Part C3 of the application.	28/02/2013
Schedule 5 Notice information request dated 15/04/13	The responses provided to questions 3, 4 and 5.	26/04/2013
Response to pre-operational condition PM7	Operating techniques as set out in improvement condition response PM7 – IBA and FGT ash sampling	12/02/2014
Response to pre-operational condition PM14	Operating techniques as set out in improvement condition response PM14 – Pit Management Procedure	14/02/2014

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Response to pre-operational condition PM16	Emissions Discharge Plan including Site Drainage Plan	24/09/2013
Response to pre-operational condition PM17	Site Closure Plan	15/10/2013
Response to pre-operational condition PM19	Odour Management plan received in response to PM19 dated 24/02/2013	25/02/2013
Response to pre-operational condition PM20	Soil and Groundwater Monitoring Protocol	07/03/2014
Response to improvement condition IC4	Operating techniques as set out in improvement condition response IC4 – Abnormal Operation Combustion Parameters	27/04/2015
Response to improvement condition IC9	Operating techniques as set out in improvement condition response IC9 – Oil Management Procedure	20/03/2015
Response to improvement condition IC10	Operating techniques as set out in improvement condition response as approved by the Environment Agency	Date IC10 response was received

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall provide the Environment Agency with a written post-commissioning report for approval, which shall include but not be limited to: • a review of the performance of the facility against the conditions of this permit. • details of the optimisation of the emission abatement systems, including: - primary control measures for NOx formation - secondary control measures for NOx formation, in particular, reagent dosing rates - reagent dosing for acid gas abatement - reagent dosing for dioxin and heavy metal abatement • calibration reports for the continuous emissions monitoring equipment. • verification of the firing of the auxiliary burners in response to falling temperature in the combustion chamber. • verification that combustion conditions of the furnace comply with the minimum operating conditions in Article 6 of the WID, are adequately monitored and controlled, and that safe operating conditions are ensured and emissions are minimised. details of procedures developed during commissioning for achieving and demonstrating satisfactory process control.	Report to be submitted to the Agency within 4 months from the completion of the commissioning process, as defined by the Commissioning Plan.
IC2	The Operator shall prepare a written report that demonstrates that the Continuous Emission Monitors have been appropriately calibrated and their performance verified to BS EN 14181, for the release points and parameters as specified in Schedule 4 Table S4.1. The report shall	Report to be submitted to the Agency within 3 months from

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	include the measures undertaken and the results obtained, and be submitted in writing to the Environment Agency for approval.	the completion of the commissioning process, as defined by the Commissioning Plan.
IC3	The Operator shall undertake a study and produce a written report to verify that residence time, minimum temperature and oxygen content of the combustion gases in the furnace meet the WID requirements whilst operating under the anticipated most unfavourable operating conditions. The report shall be submitted in writing to the Environment Agency for approval.	Report to be submitted to the Agency within 3 months from the completion of the commissioning process, as defined by the Commissioning Plan.
IC4	The operator shall prepare a written report detailing the relationship between combustion parameters (temperature, O2 and flue gas flow rate) with CO and TOC concentrations that demonstrates how the combustion parameters can be used under abnormal operations to verify compliance with the emission limit values given in Schedule 3 table S3.1 (a). The report shall be submitted to the Environment Agency for approval, The report findings shall be implemented by the operator from the date of approval in writing by the Agency.	Report to be submitted to the Agency within 4 months from the completion of the commissioning process, as defined by the Commissioning Plan.
IC5	The operator shall prepare a written report detailing the measures to be taken to ensure that under abnormal operating conditions relating to a failure of the particulate CEM, the emission limit value for particulate given in Schedule 3 Table S.1 (a) is complied with. The report shall be submitted to the Environment Agency for approval. The report findings shall be implemented by the operator from the date of approval in writing by the Agency.	Report to be submitted to the Agency within 4 months from the completion of the commissioning process, as defined by the Commissioning Plan.
IC6	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. The proposal shall include methods for identifying the fractions within the PM_{10} and $PM_{2.5}$ and ranges and a timetable to carry out such tests and produce a written report on the results. On receipt of written approval by the Agency for the proposal and timetable, the Operator shall carry out the tests and submit a written report to the Agency that includes the results of the tests.	Proposals to be submitted to the Agency within 6 months of the completion of commissioning as defined by the commissioning Plan.
IC7	The Operator shall review the potential techniques for continuous measurements for heavy metals, PAH's, dioxins / furans and dioxin-like PCBs. The review should include cost, availability, accuracy and detection limits. A written report of the review shall be submitted to the Environment Agency.	Report to be submitted to the Agency within 12 months from the completion of the commissioning

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
		process, as defined by the Commissioning Plan.
IC8	The Operator shall carry out a programme of ambient air quality monitoring beyond the installation boundary, to demonstrate whether the ground level concentrations for the monitored parameters are in accordance with those predicted in the dispersion modelling report provided in the application. The programme methodology shall include but not be limited to - the substances that will be monitored; - a description of the monitoring techniques to be used; - the identification of sites where monitoring will be undertaken; - the frequency at which monitoring will be undertaken; and, - A timescale to produce a written report on the findings of the study. A documented methodology for the programme shall be submitted to the Environment Agency for approval. The programme shall be implemented by the operator from the date of approval in writing by the Agency.	Within 12 months from the completion of the commissioning process, as defined by the Commissioning Plan.
IC9	The Operator shall prepare written procedures that detail 1. Cleaning and maintenance arrangements for site drainage oil interceptors. 2. Maintenance and integrity testing arrangements for oil storage and supply pipework infrastructure. 3. Accident control arrangements for fuel oil spillage and loss of containment. The documented procedures shall be submitted to the Environment Agency for approval, and subsequently incorporated into the site EMS when approved.	Proposals to be submitted within 3 months of commencing the commissioning process, as defined by the Commissioning Plan
IC10	The operator shall submit a report to the Environment Agency for approval (using the form provided by the Environment Agency) that addresses compliance with each BAT conclusion. The report shall include: i. If any BAT conclusion is not relevant explain why ii. Whether and how the installation complies with the standards in set out in each BAT conclusion iii. If the installation does not currently comply with a standard set in a BAT conclusion describe how and when the installation will comply with that standard. iv. If the installation will continue operating in a manner which would not comply with a BAT Conclusion, after 03/12/2023 the operator shall submit to the Environment Agency: • a justification for being allowed to do so • a description of alternative measures to be adopted that will provide equivalent environmental protection	3 months from issue of variation notice V003
IC11	The operator shall submit a report to the Environment Agency on whether waste feed to the plant can be proven to have a low and stable mercury content. The report shall have regard to BAT 4 of the BAT conclusions, be based on historic mercury emissions monitoring data and have regard to the Environment Agency Mercury Monitoring Protocol.	30/09/23
IC12	The operator shall submit a report to the Environment Agency on whether dioxin emissions to air are stable. The report shall have regard to BAT 4	30/09/23

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	of the BAT conclusions, be based on historic dioxin emissions monitoring data and have regard to the Environment Agency Dioxins Monitoring Protocol.	
IC13	The operator shall perform a study to determine the extent to which the operation of the current systems in place at the plant to minimise NOx emissions can be further optimised such that emissions are reduced as far as possible below 180 mg/Nm^3 as a daily average, without significantly increasing emissions of other pollutants or having a significant negative effect on plant operation, reliability or bottom ash quality. The study shall be based on the results of trials carried out at the installation and shall have regard to the recommendations for test conditions set out in Section 5.4.3 of report titled 'Establishing factors that influence NOx reduction at waste incineration plant to levels below the upper end of the BAT-AELs' (dated 14/01/2022), or other methodology agreed in writing with the Environment Agency. A written report of the study shall be submitted to the Environment Agency which shall include but not necessarily be limited to the following: • A brief description of the currently installed measures at the installation to minimise NOx emissions, including details of how the reagent dosing system responds to emissions monitoring data and historic data which illustrates the current achievable level of daily NOx emissions. • The results of trials conducted to further reduce daily average NOx emissions using currently installed measures, including: o a description of the parameters that were varied during the trial e.g. ammonia or urea feed rates, physical form of urea injected, air flows, and the range over which they were varied o the levels of NOx achieved and associated levels of ammonia and nitrous oxide emissions and reagent consumption o observed effects and predicted long-term impacts on plant operation, reliability and maintenance regime o any changes to the composition of the bottom ash and boiler ash and the implications of those changes for the ability to process and use the ash, as well as for the pollution potential of the ash both during processing and its subsequent use as a secondary aggregate o any other relevant cross-media effects The report shall also include a description of the extent to which current systems in place at the plant to minimise NOx emissions can be optimised on a permanent basis, including justification and an implementation plan where relevant.	30/09/23
IC14	Where the response to IC10 shows that the energy efficiency will be below the bottom of the BAT-AEEL range specified in BAT 20 after 02/12/2023 the operator shall carry out an assessment of the opportunities to increase the energy efficiency of the installation.	12 months from issue of variation notice

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The assessment shall include but not necessarily be limited to: • Improvements that could be made to the furnace (including control systems) in order to increase the amount of thermal energy produced per unit of thermal energy in the waste. • Improvements that could be made to the steam system and related components to allow a greater quantity of electricity to be generated per unit of thermal energy in the steam. • Improvements in the heat and electrical efficiency of the plant's ancillary systems that could be made in order to reduce the parasitic heat and electrical loads of the plant. • Where relevant, an implementation plan for the improvements identified, including the anticipated increase in the gross and/or net electrical efficiency of the plant which would be achieved. A written copy of the assessment shall be submitted to the Environment Agency.	

Table S1.4 Pre-operational measures	
Reference	**Requirement**
PM1	From the date of issue of this permit, the operator shall provide the Agency with a report every 6 months outlining the progress with the planned building of the installation. The report shall include but not be limited to, status of the existing waste transfer station, demolition and land remediation at the site and time frames for the introduction of key building works and plant infrastructure.
PM2	At least 3 months before any furnace operation, the Operator shall provide the Environment Agency with a written Commissioning Plan and timetable for the commissioning process, including plant trials, monitoring protocols and how combustion conditions will be verified to meet the requirements of Article 11(3) of WID. The plan should also detail the actions that will be taken to ensure that permit conditions and the requirements of the Waste Incineration Directive (WID) can be achieved under all anticipated operating conditions. The plan shall be implemented in accordance with the written approval of the Environment Agency.
PM3	At least 3 months before any furnace operation, a written report shall be submitted to the Environment Agency describing the arrangements for continuous and periodic monitoring of emissions to air with regards to Technical Guidance Notes M1 and M2. The report shall include the following: • plant and equipment details, including accreditation to MCERTS • methods and standards for sampling and analysis of all substances controlled by the Waste Incineration Directive plus continuous monitoring of NH3 and periodic monitoring of N2O • monitoring locations, access and working platforms. The plan shall be implemented in accordance with the written approval of the Environment Agency.

Table S1.4 Pre-operational measures	
Reference	**Requirement**
PM4	At least 3 months prior to commissioning the operator shall submit a written plan to the Environment Agency describing a detailed programme for the monitoring of metals, dioxins/furans, PAH's and dioxin like PCB's in the soils in the vicinity of the installation. The plan shall include but not be limited to • a baseline soil survey prior to commencement of the incineration of waste • sampling locations having regard to the receptors identified in the application • the frequency and duration of the monitoring programme • sampling methodology and analytical techniques The plan shall be implemented in accordance with the written approval of the Environment Agency.
PM5	At least 3 months prior to commissioning (but after cessation of the existing permitted activities at the site), the operator shall undertake a noise survey to establish background noise levels in accordance with BS 4142. A report recording the findings of the survey shall submitted to the Environment Agency for approval within 2 months of carrying out the survey.
PM6	At least six months prior to commissioning of the incineration plant, the operator shall submit a written report to the Environment Agency identifying the choice of alkaline reagent to be used for acid gas abatement. The report shall provide details of the reagent injection system and the associated design of the bag filter abatement system that enables acid gases to be controlled. The findings of the report shall be implemented into the plant design and construction in accordance with the written approval of the Environment Agency.
PM7	At least 3 months prior to the incineration of municipal waste, the Operator shall submit a written plan to the Environment Agency describing the detailed ash sampling protocol that will be used for FGT residue and bottom ash monitoring, in conformance to Agency Guidance. The plan shall be implemented in accordance with the written approval of the Environment Agency.
PM8	At least 3 months prior to the incineration of municipal waste, the Operator shall submit a written plan to the Environment Agency that defines noise surveys that shall be undertaken to establish noise levels during operation of the plant when thermally treating waste. The surveys shall be in accordance with BS 4142 and a report shall be submitted to the Agency within 1 month of carrying out the surveys. The plan shall be implemented in accordance with the written approval of the Agency, and a report of the findings of the initial survey submitted to the Agency within 3 months of the commencement of burning waste. The report shall include proposals to eliminate any significant adverse impacts identified from the survey, and these proposals shall be implemented within 3 months of the report being submitted to the Agency.
PM9	At least two months prior to commissioning the Operator shall submit an additional site report for the installation. This report shall include, but not be limited to, • reference data characterising land condition within the installation prior to operations and with reference to previous activities at the site and any land remediation measures associated with cessation of the previous activities • a detailed site drainage plan and description of finalised drainage arrangements • a revised table D2 (as given in the guidance H7) recording a containment and integrity assessment for all installed liquid storage facilities and infrastructure an integrity assessment for all installed subsurface structures.
PM10	At least six months before commissioning, the operator shall submit an updated site accident management plan to the Environment Agency for approval. The plan shall be in accordance with the requirements set out in Section 2.8 of Sector Guidance Note IPPC S5.01.

Table S1.4 Pre-operational measures	
Reference	**Requirement**
PM11	At least six months prior to commissioning, the operator shall submit a flood management plan for the installation that shall include but not be limited to the trigger level for flooding, which requires the site to be shut down and the measures in place to ensure relevant equipment is protected from flood waters. The flood management plan shall be approved by the Agency.
PM 12	On completion of commissioning of the incineration and electrical generation plant, the operator shall provide a report to demonstrate whether all components are fully operational and in accordance with design. The report shall include details of process parameter measuring devices and their calibration, including those for oxygen and temperature measurement within the combustion chambers. The report shall be submitted to the Environment Agency for approval, before the installation is brought into continuous operation. .
PM13	At least six months prior to commissioning of the plant, the operator shall have in place a documented management system that reflects the requirements of the PPC permit. The Operator shall submit an updated EPOPRA assessment.
PM14	At least two months prior to incineration of waste, the Operator shall submit proposals to the Environment Agency that identifies arrangements for the storage and transfer of wastes held within the Installation that would result from breakdown or shutdown of the plant. The proposals shall include, but not be limited to, details of the following • storage location • housekeeping • duration of storage • management of potential odours. On receipt of written approval of the proposals by the Agency, the operator shall incorporate procedures and work instructions for this activity within the Environmental Management System.
PM15	At least 3 months prior to the start of commissioning, the Operator shall carry out a review of the options available for utilising the residual heat remaining from the process after electricity generation, in order to ensure that it is recovered as far as practicable. The review shall detail any identified proposals for heat recovery and utilisation and provide a timetable for their implementation. The review should also provide design details of the residual steam pass-out arrangements that have been included in the plant design. The Operator shall submit a written copy of the review to the Environment Agency for approval
PM16	At least two months prior to commissioning, the operator shall provide an updated site plan confirming the extent of the Installation boundary, detailing the location of release points A1, W1, S1 and the location of all key operational equipment at the site.
PM17	Prior to the commencement of incineration of waste, the operator shall submit an updated written site closure plan to the Environment Agency for approval. The plan shall be in accordance with the requirements set out in Section 2.11 of Sector Guidance Note IPPC S5.01.
PM18	Prior to the commencement of incineration of waste, the operator shall ensure the environmental management system has been submitted to an external body for certification.

Table S1.4 Pre-operational measures	
Reference	**Requirement**
PM19	At least 6 months prior to commencement of incineration of waste an Odour Management Plan shall be submitted to the Agency, detailing the measures to be used to control emissions of odour and shall be accordance with Appendix 7 (template for an odour management plan) of Horizontal Guidance Note H4 (Horizontal Guidance for Odour (Part 1). The plan should be reviewed annually, and any changes submitted to the Agency for approval. The plan shall be implemented by the operator from the date of approval in writing by the Agency.
PM20	Prior to the commencement of commissioning 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.

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for incineration plant	
Maximum quantity	**60,000 tonnes per year**
Waste code	**Description**
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 06	Mixed packaging
15 02	Absorbents, filter materials, wiping cloths and protective clothing
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
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 05	Wastes from aerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar wastes
19 06	Wastes from anaerobic treatment of waste
19 06 04	Digestate from anaerobic treatment of municipal waste
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	Paper and cardboard
19 12 07	Wood other than that mentioned in 19 12 06
19 12 08	Textiles
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01 01	Paper and cardboard
20 01 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 38	Wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 03	Street-cleaning residues
20 03 07	Bulky waste

Schedule 3 – Emissions and monitoring

Table S3.1 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 - as shown on the Site Plan in Schedule 7	Particulate matter	Incineration exhaust gases via heat recovery boiler and APC plant	30 mg/m^3	½-hr average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Particulate matter	Incineration exhaust gases via heat recovery boiler and APC plant	10 mg/m^3 Until 02/12/2023 5 mg/m^3 from 03/12/2023	daily average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Total Organic Carbon (TOC)	Incineration exhaust gases via heat recovery boiler and APC plant	20 mg/m^3	½-hr average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Total Organic Carbon (TOC)	Incineration exhaust gases via heat recovery boiler and APC plant	10 mg/m^3	daily average	Continuous	EN 14181
A1 - as shown on	Hydrogen chloride	Incineration exhaust	60 mg/m^3	½-hr average	Continuous	EN 14181

Table S3.1 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)**
the Site Plan in Schedule 7		gases via heat recovery boiler and APC plant				
A1 - as shown on the Site Plan in Schedule 7	Hydrogen chloride	Incineration exhaust gases via heat recovery boiler and APC plant	10 mg/m^3 Until 02/12/2023 8 mg/m^3 from 03/12/2023	daily average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Hydrogen fluoride	Incineration exhaust gases via heat recovery boiler and APC plant	2 mg/m^3 until 02/12/2023 1 mg/m^3 from 03/12/2023	Average of three consecutive measurements of at least 30 minutes each	Bi-annually	CEN TS 17340 [BS ISO 15713 can be used until 01/03/22]
A1 - as shown on the Site Plan in Schedule 7	Carbon monoxide	Incineration exhaust gases via heat recovery boiler and APC plant	100 mg/m^3	½-hr average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Carbon monoxide	Incineration exhaust gases via heat recovery boiler and APC plant	50 mg/m^3	daily average	Continuous	EN 14181

Table S3.1 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 - as shown on the Site Plan in Schedule 7	Sulphur dioxide	Incineration exhaust gases via heat recovery boiler and APC plant	200 mg/m^3	½-hr average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Sulphur dioxide	Incineration exhaust gases via heat recovery boiler and APC plant	50 mg/m^3 Until 02/12/2023 40 mg/m^3 from 03/12/2023	daily average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Incineration exhaust gases via heat recovery boiler and APC plant	400 mg/m^3	½-hr average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Incineration exhaust gases via heat recovery boiler and APC plant	200 mg/m^3 Until 02/12/2023 180 mg/m^3 from 03/12/2023	daily average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Cadmium & thallium and their compounds (total)	Incineration exhaust gases via heat recovery	0.05 until 02/12/2023 0.02 mg/m^3 from 03/12/2023	Average of three consecutive measurements of at least 30 minutes each	Bi-annually	BS EN 14385

Table S3.1 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)**
		boiler and APC plant				
A1 - as shown on the Site Plan in Schedule 7	Mercury and its compounds	Incineration exhaust gases via heat recovery boiler and APC plant	0.05 mg/m^3 until 02/12/2023	Average of three consecutive measurements of at least 30 minutes each	Bi-annually until 02/12/2023	BS EN 13211
A1 - as shown on the Site Plan in Schedule 7	Mercury and its compounds	Incineration exhaust gases via heat recovery boiler and APC plant	0.02 mg/m^3 from 03/12/2023 Limit does not apply if continuous monitoring has been specified in writing by the Environment Agency	Average of three consecutive measurements of at least 30 minutes each	bi-annually from 03/12/2023 Not required if continuous monitoring has been specified in writing by the Environment Agency	BS EN 13211
A1 - as shown on the Site Plan in Schedule 7	Mercury and its compounds	Incineration exhaust gases via heat recovery boiler and APC plant	0.02 mg/m^3 from 03/12/2023	Daily average	Continuous from 03/12/2023 Not required unless continuous monitoring has been specified by in writing by the Environment Agency in line with sampling protocol	EN 14181

Table S3.1 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 - as shown on the Site Plan in Schedule 7	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	Incineration exhaust gases via heat recovery boiler and APC plant	0.5 mg/m^3 Until 02/12/2023 0.3 mg/m^3 from 03/12/2023	Average of three consecutive measurements of at least 30 minutes each	bi-annually	BS EN 14385
A1 - as shown on the Site Plan in Schedule 7	Exhaust gas temperature	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	-	Continuous	Traceable to national standards
A1 - as shown on the Site Plan in Schedule 7	Exhaust gas pressure	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	-	Continuous	Traceable to national standards
A1 - as shown on the Site Plan in Schedule 7	Exhaust gas flow	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	-	Continuous from 01/01/2023	BS EN 16911-2
A1 - as shown on the Site Plan in Schedule 7	Exhaust gas oxygen content	Incineration exhaust gases via heat recovery	No limit set	-	Continuous	EN 14181

Table S3.1 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)**
		boiler and APC plant				
A1 - as shown on the Site Plan in Schedule 7	Exhaust gas water vapour content	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	-	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7	Ammonia (NH_3)	Incineration exhaust gases via heat recovery boiler and APC plant	No Limit Set 15 mg/m^3 from 03/12/2023	daily average	Continuous	EN 14181
A1 - as shown on the Site Plan in Schedule 7 A1 - as shown on the Site Plan in Schedule 7	Nitrous oxide (N_2O)	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	Periodic over minimum 1-hour period Until 01/01/2023 ½-hr average and daily average From 01/01/2023	Bi-annual Until 01/01/2023 Continuous From 01/01/2023	EN ISO 21258 Until 01/01/2023 EN 14181 From 01/01/2023
A1 - as shown on the Site Plan	Carbon dioxide	Incineration exhaust gases via	No limit set	Continuous	Continuous From 01/01/2023	EN 14181

Table S3.1 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)**
in Schedule 7		heat recovery boiler and APC plant				
A1 - as shown on the Site Plan in Schedule 7	Dioxins / furans (I-TEQ)	Incineration exhaust gases via heat recovery boiler and APC plant	0.1 ng/m^3 Until 02/12/2023	periodic over minimum 6 hours, maximum 8 hour period	Bi-annually Until 02/12/2023	BS EN 1948 Parts 1, 2 and 3
A1 - as shown on the Site Plan in Schedule 7	Dioxins / furans (I-TEQ)	Incineration exhaust gases via heat recovery boiler and APC plant	0.06 ng/m^3 or 0.08 ng/m^3 if long term limit is specified by the Environment Agency in line with sampling protocol from 03/12/2023	periodic over minimum 6 hours, maximum 8 hour period or value over sampling period of 2 to 4 weeks for long term sampling	Bi-annually From 03/12/2023 or long term sampling if specified by the Environment Agency in line with sampling protocol From 03/12/2023	EN 1948 Parts 1, 2 and 3 or CEN TS 1948-5 if specified by the Environment Agency in line with sampling protocol
A1 - as shown on the Site Plan in Schedule 7	Dioxin-like PCBs (WHO-TEQ Humans / Mammals, Fish, Birds)	Incineration exhaust gases via heat recovery	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Bi-annually; or	EN 1948 Parts 1, 2 and 4

Table S3.1 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)**
		boiler and APC plant		or value over sampling period of 2 to 4 weeks for long term sampling from 03/12/2023.	long term sampling if specified by the Environment Agency in line with sampling protocol from 03/12/2023. No monitoring is required if emissions have been shown to be below 0.01 ng/m^3 as agreed with the Environment Agency.	or CEN TS 1948-5 if specified by the Environment Agency in line with sampling protocol
A1 - as shown on the Site Plan in Schedule 7	Dioxins / furans (WHO-TEQ Humans / Mammals, Fish, Birds)	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Bi-annually	BS EN 1948 Parts 1, 2 and 3
A1 - as shown on the Site Plan in Schedule 7	Polybrominated dibenzo-dioxins and furans	Incineration exhaust gases via heat recovery boiler and APC plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Bi-annually from 01/01/2023	Method based on procedural requirements of EN 1948
A1 - as shown on the Site Plan in Schedule 7	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Incineration exhaust gases via heat recovery	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Annually	BS ISO 11338 Parts 1 and 2.

Table S3.1 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)**
		boiler and APC plant				
A1 - as shown on the Site Plan in Schedule 7	Carbon monoxide	Back-up electrical generator	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 16 February 2021 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first) from 01/01/2030	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 16 February 2021 (formerly known as TGN M5)

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 - as shown on the Site Plan in Schedule 7	Particulate matter		150 mg/m^3	½-hr average	Continuous measurement	EN 14181 or alternative surrogate as agreed in writing with the environment agency during failure of the continuous emission monitor
A1 - as shown on the Site Plan in Schedule 7	Total Organic Carbon (TOC)		20 mg/m^3	½-hr average	Continuous measurement	EN 14181 or

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
						alternative surrogate as agreed in writing with the environment agency during failure of the continuous emission monitor
A1 - as shown on the Site Plan in Schedule 7	Carbon monoxide		100 mg/m^3	½-hr average	Continuous measurement	EN 14181 or alternative surrogate as agreed in writing with the environment agency during failure of the continuous emission monitor

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 (on site plan submitted as part of PM16) discharging to River Exe via interceptor	Collected uncontaminated surface water	No parameter set	No limit set uncontaminated water free of visible oil and grease	-	-	Permanent sampling access not required

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S1 (on site plan submitted as part of PM16) discharging to Starcross Sewage Treatment Works	Discontinuous discharge from boiler blowdown	-	-	-	-	-

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
As agreed with the Agency	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.
Incineration plant	Gross electrical efficiency	within 6 months of any modification that significantly affects energy efficiency	Performance test at full load or other method as agreed in writing with the Environment Agency	

Table S3.5 Residue quality					
Emission point reference or source or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method ***	**Other specifications**
Bottom Ash	LOI	5%	Quarterly	EN 14899 and either EN 15169 or EN 15935	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.		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.		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.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.6.1	A1 as shown on the Site Plan in Schedule 7	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
LOI Parameters as required by condition 3.6.1	Bottom Ash	Quarterly	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 3.6.1	Bottom Ash	Quarterly	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 3.6.1	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 3.6.1	APC Residues	Quarterly	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 3.6.1	APC Residues	Before use of a new disposal or recycling route	

Table S4.2: Annual production/treatment	
Parameter	**Units**
Total Municipal Waste Incinerated	tonnes
Total Commercial Waste Incinerated	tonnes
Electrical energy produced	KWh

Table S4.2: Annual production/treatment	
Parameter	**Units**
Thermal energy produced e.g., steam for export	KWh
Electrical energy exported	KWh
Electrical energy used on installation	KWh
Waste heat utilised by the installation	KWh

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Annual Report as required by condition 4.2.2	Annually	-
Electrical energy exported, imported and used at the installation	Annually	KWh / tonne of waste incinerated
Fuel oil consumption	Annually	Kg / tonne of waste incinerated
Bottom Ash residue	Annually	Route, tonnes and tonnes / tonne of waste incinerated
APC residue	Annually	Route, tonnes and tonnes / tonne of waste incinerated
Urea consumption	Annually	Kg / tonne of waste incinerated
Activated Carbon consumption	Annually	Kg / tonne of waste incinerated
[Lime / Sodium Bicarbonate] consumption	Annually	Kg / tonne of waste incinerated
Water consumption	Annually	Kg / tonne of waste incinerated
Periods of abnormal operation	Annually	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**
Annual report required by condition 4.2.2	Annual performance report template	November 2019
Emissions to air until 02/12/2023	Form air A1 to A6 or other form as agreed in writing by the Agency	30/11/2009
Emissions to air from 03/12/2023	Forms air 1-9 or other forms as agreed in writing by the Environment Agency	10/05/2022
Residue quality	Form residue 1 and 2 or other form as agreed in writing by the Environment Agency	10/05/2022
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	10/05/2022

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the 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 2.3.12 and ends as defined in condition 2.3.13. 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.

“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.

“BAT conclusions” means Commission Implementing Decision (EU) 2019/2010 of 12 November 2019 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for Waste Incineration

“bottom ash” means ash falling through the grate and transported by the grate

“CEM” Continuous emission monitor

“CEN” means Commité Européen de Normalisation

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

“Commissioning” means testing of the new incineration plant that involves any operation of the furnace

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 Directive 2008/98/EC of the European Parliament and of the Council on waste.

“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.

‘Hazardous property’ has the meaning in Annex lll of the Waste Framework Directive

“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

“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, as amended from time to time

"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.

"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.

"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.

"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.

"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

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 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
2,3,4,4',5-PeCB (114)	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 (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.

When the following terms appear in the waste code list in Schedule 2, table 2.2 for that table, they have the meaning given below:

‘hazardous substance’ means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

‘heavy metal’ means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances

‘PCBs’ means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight

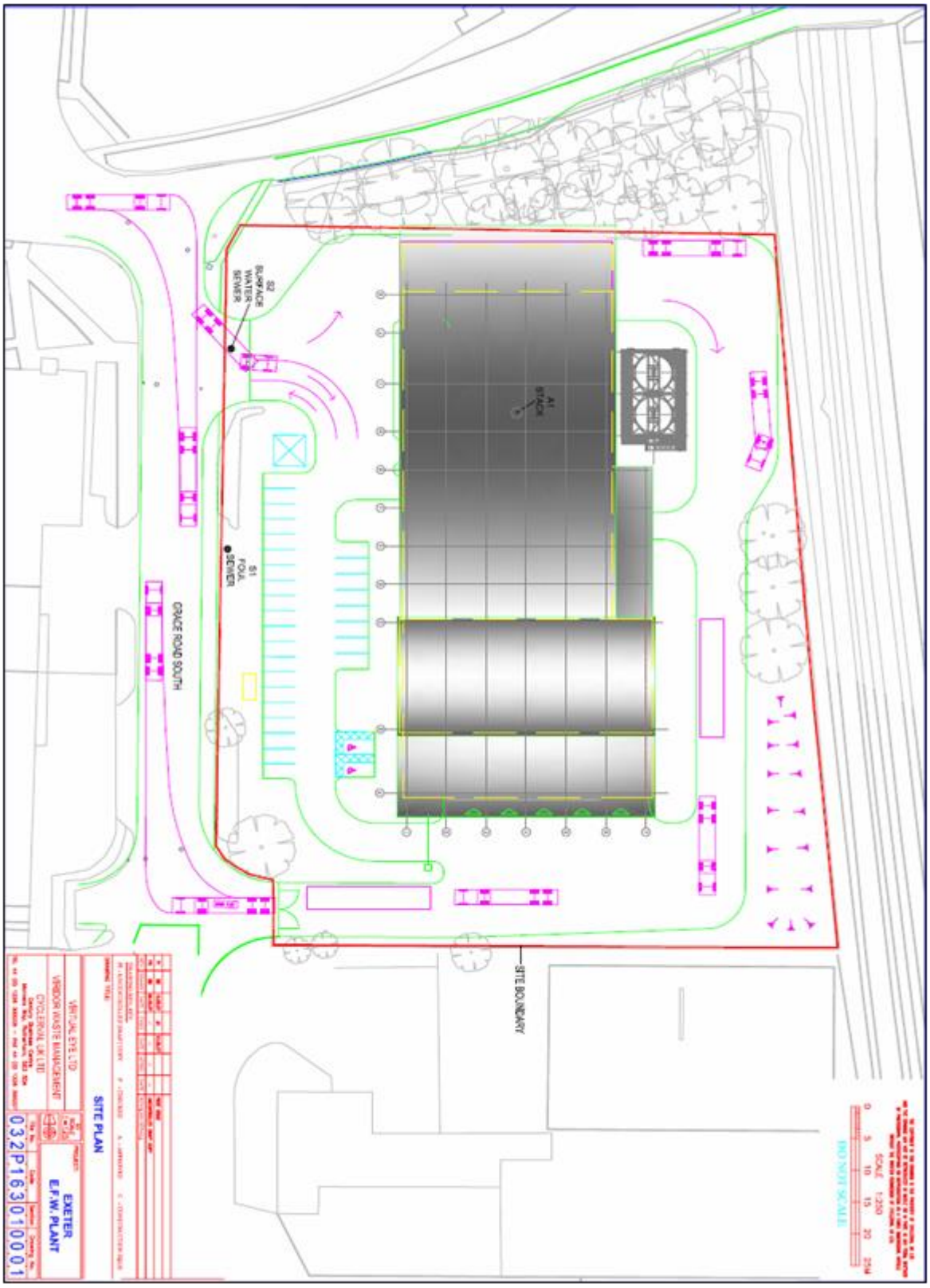
‘transition metals’ means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances

‘stabilisation’ means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste

‘solidification’ means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste

‘partly stabilised wastes’ means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan



END OF PERMIT