Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Redcar Holdings Limited

Redcar Energy Centre
Land at Redcar Bulk Terminal
Redcar
TS10 5QW

Permit number

EPR/TP3502MS

Redcar Energy Centre
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Introductory note

This introductory note does not form a part of the permit

The installation is operated by Redcar Holdings Limited, and is located at Land at Redcar Bulk Terminal, Redcar, TS10 5QW. The centre of the site is located at National Grid reference NZ 55890 26032.

The installation will consist of the following activities:

- Section 5.1 Part A(1) (b) – Incineration of non-hazardous waste in a waste incineration plant with a capacity exceeding 3 tonnes per hour
- Section 5.4 Part A(1) (a) (iii) – Pre-treatment of waste prior to incineration
- Section 5.4 Part A(1) (b) (ii) – Pre-treatment of waste prior to incineration
- Section 5.4 Part A(1) (b) (iii) – Treatment of slags and ashes
- Waste operation for the blending of IBAA (Incinerator Bottom Ash Aggregate) with waste aggregate

The permit implements the requirements of the EU Directives on Industrial Emissions and Waste.

The main features of the permit are as follows:

The Fuel Preparation Facility (FPF) processes up to 200,000 tonnes of commercial and industrial (C&I) and residual municipal solid waste (MSW) per annum. Non-bulky waste is pretreated and baled prior to arrival at the installation. Waste is delivered by enclosed vehicles into the enclosed FPF building. The baled waste is broken open in a shredding line before being transferred to the incineration bunker by bridge conveyor.

The main features of the incinerator are as follows:

Furnace technology	Moving Grate
Number of lines	2
Waste	Municipal / Commercial & Industrial
Stack height	120 m
Permitted plant capacity	500,000 tonnes per year
Electrical generation capacity	49.9 MWe (gross) 44.9 MWe (net)
Gross electrical efficiency	30.4 %
Heat export capacity	10 MWth

The incinerator consists of two thermal treatment process lines, each with a maximum operating capacity of 250,000 tonnes per year. Energy is recovered from the incineration process in the form of electricity (which

is exported to the National Grid) and heat (which can be utilised by local energy users). The export of heat is subject to the completion of contractual agreements.

In addition to wastes received from the FPF, the Energy Recovery Facility accepts additional direct deliveries of MSW and C&I wastes for incineration. Wastes are deposited into the bunker and mixed via crane grabs to improve homogeneity. The crane grab transfers waste into the feed hoppers, and into the moving grate furnace.

Heat released from the incineration of waste is recovered by steam boilers integral to the furnaces, producing high pressure superheated steam. Steam from both boilers feed a high-efficiency steam turbine, generating approximately 49.9MWe. There is capacity to export 10 MWth of heat to local users either in the form of hot water or high-pressure steam).

Emissions from the incineration process are discharged via two 120m stacks (emission points A1 and A2). A combination of techniques is utilised to prevent and minimise the impact of emissions, including:

- The boiler design ensures flue gases are cooled rapidly through the de novo synthesis range, minimising reformation of dioxins and furans
- Optimisation of the combustion control system, ensuring complete combustion where emissions of carbon monoxide (CO) and volatile organic compounds (VOC) are reduced
- Selective Non-Catalytic Reduction (SNCR) to minimise nitrogen oxide (NOx) emissions
- Dry-scrubbing of flue gases with lime and activated carbon to minimise emissions of acid gases, metals, dioxins and furans
- Bag filters to control particulate emissions.

Continuous Emissions Monitors are used to monitor emissions to air of several parameters, other pollutants are monitored periodically. Monitoring is specified in Table S3.1 of the permit.

The incineration process results in solid residues of hazardous air pollution control residues (APCr) and non-hazardous incinerator bottom ash (IBA). APCr is transferred off site for treatment (if possible) or disposal, and IBA is quenched before being transferred to the IBA facility for treatment.

All process waters will be re-used where possible with no emissions during normal operations. The FPF and ERF have a sealed drainage system; all process effluents are collected for quenching the IBA within the ERF. Infrequently, during maintenance, there can be an excess of effluent from the emptying of the boiler, this

The IBA Facility processes a maximum of 180,000 tonnes of IBA per year. IBA from the ERF and from off-site sources is delivered into a bunker inside the enclosed IBA reception building. There are discrete bays within the IBA bunker to allow the maturing process to take place in batches. IBA is stored to mature it and kept at a moisture content of 15-20% to maximise metal extractions during the processing stage.

Processing consists of a series of sorting and separation stations using over-band magnets, eddy current separators, crushing and size separation using screens. IBA is fed into a hopper with screening for oversize material. A magnetic separator is utilised to remove ferrous metals and an eddy current separator for non-ferrous metals. The IBA is then separated using a drum screen and wind sifter. A secondary over-band magnet is used to remove the finer particles of ferrous metals. The resultant processed IBA fractions are then blended with waste aggregate (brought in from off-site sources) using a front loader to ensure the IBAA meets the relevant standard for the end-use as specified by the customer. Metals are sent off-site for recovery/recycling. IBAA is stored outside in 3 sided-bays for an additional 2 – 4 week period of ageing, for pH stabilisation and reduction of leachability, before removal from site. The IBAA is stored at a moisture content of 15-20% to prevent/minimise dust emissions.

All processing equipment is housed within an enclosed building. The IBA conveyor between the bunker reception building and the processing building is enclosed. There are no extraction systems or air emission points from the enclosed buildings.

Drainage from the external storage yard is collected in a sealed drainage system and stored within a concrete settlement lagoon, before being re-used in the process. Any excess process effluents are removed from site by tanker to a licenced facility for treatment.

Uncontaminated surface water run-off (from non-process areas) is collected in an attenuation pond and passes through an oil interceptor before discharge into surface water at emission point W1.

The closest sensitive human receptor (industrial) is approximately 1.8km from the Installation boundary, and the closest residential receptor is approximately 2.3km from the Installation boundary. The following habitats are located within the relevant distances from the Installation:

- Special Protection Areas (SPA): Teesmouth and Cleveland Coast (300m)
- Ramsar: Teesmouth and Cleveland Coast (300m)
- Sites of Special Scientific Interest (SSSI): Teesmouth and Cleveland Coast (130m)
- National Nature Reserve (NNR): Teesmouth (1700m)

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

Status log of the permit		
Description	**Date**	**Comments**
Application received EPR/TP3502MS/A001	Duly made 29/06/2023	Application for permit
Response to Schedule 5 notice sent on 22/03/2024	19/04/2024	Updated Fire, Odour and Emissions and management plans
Response to Schedule 5 notice sent on 20/09/2024	01/11/2024	Modelling and accompanying report
Response to Schedule 5 notice sent on 11/11/2024	17/12/2024; 11/02/2025	Ecological report; Updated Air Quality Impact Assessment
Response to Schedule 5 notice sent on 13/01/2025	28/03/2025	Information on bottom ash storage and handling
Permit determined EPR/TP3502MS	09/05/2025	Permit issued to Redcar Holdings Limited

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/TP3502MS

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

Redcar Holdings Limited ("the operator"),

whose registered office is

Stirling Square
5-7 Carlton Gardens
London
SW1Y 5AD

company registration number 11544871

to operate an installation at

Redcar Energy Centre
Land at Redcar Bulk Terminal
Redcar
TS10 5QW

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

Name	Date
Principal Permitting Team Leader	**09/05/2025**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

(b) using sufficient competent persons and resources; and

(c) referenced in schedule 1, table S1.1 (AR1) 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13), the operator shall:

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

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

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

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

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

1.4.1 The operator shall take appropriate measures to ensure that:

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

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

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

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

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.1.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13), waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan 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 tables S2.2, S2.3, S2.4 and S2.5; and

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

2.3.5 Waste paper, 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 during abnormal operation; 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.

2.3.10 For the following activities referenced in schedule 1, table S1.1 (AR1), the operator shall record the beginning and end of each period of “abnormal operation”.

2.3.11 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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 For the following activities referenced in schedule 1, table S1.1 (AR1), 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, S3.2 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 Total annual emissions from the emission point(s) set out in tables schedule 3 S3.1 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.

3.1.4 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S3.7 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 during abnormal operation.

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

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

3.3 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 review and record at least every four years whether changes to their emissions management plan are needed and take any further appropriate measures identified by a review.

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) ambient air monitoring specified in table S3.5;

(c) process monitoring specified in table S3.6;

(d) residue quality in table S3.7

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 and S3.3 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.

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 to AR13), 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; and

(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:

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—

inform the Environment Agency,

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

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

of a breach of any permit condition the operator must immediately—

inform the Environment Agency, and

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 A(1) (b)	Energy Recovery Facility The incineration of non-hazardous waste in a waste incineration plant with a capacity of 3 tonnes per hour or more. (Lines 1 & 2)	From receipt of waste to emission of exhaust gas, and removal from site of wastes arising. Waste types and quantities as specified in Table S2.2 of this permit, and output from the Fuel Preparation Facility (activity AR2). Total waste incinerated cannot exceed 500,000 tonnes per annum.
AR2	S5.4 A(1) (a) (iii)	Fuel Preparation Facility Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment of waste for incineration D9: Physico-chemical treatment which results in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12 D13: Blending or mixing prior to submission to any of the operations numbered D1 to D12	Physical treatment of solid non-hazardous waste to produce Refuse Derived Fuel (RDF). From receipt of wastes, to removal off-site. Treatment options are limited to physical treatment including de-bailing, shredding and blending. Treatment shall be carried out in an enclosed building and on an impermeable surface with sealed drainage system. Waste types and quantities as specified in Table S2.3 of this permit. This activity includes treatment prior to incineration in activity AR1 or prior to incineration off-site.
AR3	S5.4 A(1) (b) (ii)	Fuel Preparation Facility Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving pre-treatment of waste for incineration R3:Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes	Physical treatment of solid non-hazardous waste to produce Refuse Derived Fuel (RDF). From receipt of wastes, to removal off-site. Treatment options are limited to physical treatment including de-bailing, shredding and blending. Treatment shall be carried out in an enclosed building and on an impermeable surface with sealed drainage system. Waste types and quantities as specified in Table S2.3 of this permit.

			This activity includes treatment prior to incineration in activity AR1 or prior to incineration off-site.
AR4	S5.4 A(1) (b) (iii)	IBA Recycling Facility Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment of slags and ashes. R4: Recycling / reclamation of metals and metal compounds R5: Recycling / reclamation of other inorganic materials	From receipt of waste IBA (including IBA from activity AR1), through to treatment. Annual treatment capacity is limited to 180,000 tonnes. Treatment of IBA in an enclosed building/enclosure using a combination of a hopper with bars / screening, over-band magnets, eddy current separators. Treatment shall take place on an impermeable surface with sealed drainage. Waste types and quantities as specified in Table S2.4 of this permit
	Directly Associated Activities		
AR5	Electricity Generation	Generation of electrical power using a steam turbine from energy recovered from the flue gases.	Undertaken as a DAA to AR1. Generation of electricity for use on-site and export to the National Grid.
AR6	Steam supply system	Supply of high-pressure steam or hot water to neighbouring commercial clients.	Undertaken as a DAA to AR1. Steam/water supply, condensate collection, water treatment (equipment and pipework within the site boundary).
AR7	Back up electrical generator	For providing emergency electrical power to the plant in the event of supply interruption.	Undertaken as a DAA to AR1. Emergency use to a maximum of 500 hours operation per year. Maximum of 50 hours testing per year.
AR8	Storage of waste prior to pre-treatment for incineration	D15:Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken as a DAA to AR2 or AR3. Receipt and storage of non-hazardous waste pending pre-treatment of waste for incineration. Storage of waste in an enclosed building and on an impermeable surface with sealed drainage system. Waste types suitable for acceptance are limited to those non-hazardous wastes specified in Table S2.3.

AR9	Storage of recovered RDF and metals prior to collection and removal off site.	R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced) D15: Storage pending any operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken as a DAA to AR2 or AR3. Storage of recovered waste shall take place in an enclosed building and on an impermeable surface with sealed drainage system.
AR10	Storage of IBA prior to treatment	R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken as a DAA to AR4 From receipt of waste to transfer to treatment process. Storage shall take place in a building and on an impermeable surface with sealed drainage system. The maximum quantity of IBA stored at any one time prior to treatment is limited to 40,000 tonnes. IBA shall be stored for more than 12 months. Waste types as specified in Table S2.4.
AR11	Storage of wastes recovered from the IBA treatment processes	R13: Storage of waste pending the operations numbered R1, R4 and R5 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken as a DAA to AR4 From recovery of waste to despatch off-site for use. Storage of processed IBAA, ferrous and non-ferrous metals after treatment. The maximum quantity of IBAA stored at any one time after treatment is limited to 20,000 tonnes. The maximum quantity of ferrous / non-ferrous metals stored at any one time after treatment is limited to 1,000 tonnes. Storage shall take place on an impermeable surface with a sealed drainage system.
AR12		Uncontaminated surface water collection for use in IBA process	Undertaken as a DAA to AR4 From the collection of uncontaminated water from roofs to use within the IBA Recycling Facility.
AR13		Collection and storage of contaminated surface water	Undertaken as a DAA to AR4. Collection of contaminated water produced at the IBA Recycling

			Facility, to storage in the settlement Collection of contaminated water produced at the IBA Recycling Facility, to storage in the settlement lagoon prior to reuse within the IBA Recycling Facility. Storage prior to collection of part of the contaminated water via tanker.
Activity reference	**Description of activities for waste operations**		**Limits of activities**
AR14	Blending IBA with waste aggregates, including storage of waste aggregates R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) R5: Recycling / reclamation of other inorganic materials		From receipt of waste aggregates, storage of aggregates, through to completion of treatment by blending of waste aggregates with IBAA fractions. Storage of waste aggregates shall take place on an impermeable surface with a sealed drainage system. Treatment is in an enclosed building/enclosure on an impermeable surface with sealed drainage. Waste types and quantities as specified in Table S2.5 of this permit. The maximum quantity of waste aggregates stored prior to blending, at any one time is 5,000 tonnes.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application EPR/TP3502MS/A001	EP Application Supporting Information document, dated 29/06/2023: Sections: • 1.4.2 • 1.4.5 • 2.2.2 • 2.6.1 • 3.2.3.8 • 3.5.1.1 • 3.5.2 • 3.7.2 • 3.8.2 • 4.3	Duly Made 29/07/2023
Response to Schedule 5 Notice dated 22/03/2024	Revised Odour Management Plan, dated 19/04/2024	19/04/2024

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Response to Schedule 5 Notice dated 13/01/2025	All of the response	28/03/2025

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall submit a written report to the Environment Agency for approval on the implementation of its Environmental Management System (EMS) and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified. The report shall also include details of a review of the OTNOC management plan and any updates to the plan following the review.	Within 12 months of the completion of commissioning.
IC2	The Operator shall submit a written proposal to the Environment Agency for approval to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission points A1 and A2, identifying the fractions within the PM_{10}, and $PM_{2.5}$ ranges. On receipt of written approval from the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report on the results.	Within 6 months of the completion of commissioning.
IC3	The Operator shall submit a written report to the Environment Agency for approval on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions and confirm that the Environmental Management System (EMS) has been updated accordingly.	Within 4 months of the completion of commissioning.
IC4	The operator shall notify the Environment Agency of the proposed date(s) that validation testing is planned for.	Notification at least 3 weeks prior to validation testing
	During commissioning the operator shall carry out validation testing to validate the residence time, minimum temperature and oxygen content of the gases in the furnace whilst operating under normal load and most unfavourable operating conditions. The validation shall be to the methodology as approved through pre-operational condition PO6.	Validation tests completed before the end of commissioning
	The operator shall submit a written report to the Environment Agency for approval on the validation of residence time, oxygen and temperature whilst operating under normal load, minimum turn down and overload conditions. The report shall identify the process controls used to ensure residence time and temperature requirements are complied with during operation of the incineration plant	Report submitted within 2 months of the completion of commissioning.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC5	The Operator shall submit a written report to the Environment Agency for approval describing the performance and optimisation of: • The lime injection system for minimisation of acid gas emissions • The carbon injection system for minimisation of dioxin and heavy metal emissions. • The Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NOx). The report shall include an initial assessment of the level of NOx, N_2O and NH_3 emissions that can be achieved under optimum operating conditions.	Within 4 months of the completion of commissioning.
IC6	The Operator shall carry out an assessment of the impact of emissions to air of the following component metals subject to emission limit values: • Chromium (VI) A report on the assessment shall be submitted to the Environment Agency for approval. Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant ES. In the event that the assessment shows that an environmental standard can be exceeded, the report shall include proposals for further investigative work.	15 months from the completion of commissioning
IC7	The Operator shall submit a written summary report to the Environment Agency for approval to confirm that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 and Table S3.1(a) complies with the requirements of EN 14181, specifically the requirements of QAL1, QAL2 and QAL3. The report shall include the results of calibration and verification testing.	Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning. Full summary evidence compliance report to be submitted within 18 months of completion of commissioning.
IC8	The operator shall submit to the Environment Agency for approval a plan for implementing the CHP scheme identified in the cost benefit analysis (dated 28/06/2023). The plan shall include as a minimum: • A timescale for implementation • A description of any dependencies or further approvals required • A description of any changes that will need to be made to the plant • Whether there will be any operational changes which could affect the environmental impact of the installation, such as a reduction in stack temperature • Consideration of whether a permit variation will be required If required to do so by the Environment Agency they shall implement the plan in accordance with the Environment Agency's written approval.	Within 6 months of completion of commissioning or as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC9	During commissioning, the operator shall carry out tests to demonstrate whether the furnace combustion air will ensure that negative pressure is achieved throughout the reception hall. The tests shall demonstrate whether air is pulled through the reception hall and bunker area and into the furnace with dead spots minimised. The operator shall submit a report to the Environment Agency, for approval, summarising the findings along with any proposed improvements if required.	Within 6 months of completion of commissioning.
IC10	The operator shall carry out a programme of dioxin and dioxin like PCB monitoring over a period and frequency agreed with the Environment Agency. The operator shall submit a report to the Environment Agency for approval with an analysis of whether dioxin emissions can be considered to be stable.	Within 6 months of completion of commissioning or as agreed in writing with the Environment Agency
IC11	The operator shall carry out a programme of mercury monitoring over a period and frequency agreed with the Environment Agency. The operator shall submit a report to the Environment Agency for approval with an analysis of whether the waste feed to the plant can be proven to have a low and stable mercury content.	Within 6 months of completion of commissioning or as agreed in writing with the Environment Agency
IC12	During commissioning, the operator shall carry out tests to assess whether the air monitoring location(s) meet the requirements of BS EN 15259 and supporting Method Implementation Document (MID). A written report shall be submitted for approval setting out the results and conclusions of the assessment including where necessary proposals for improvements to meet the requirements. The report shall specify the design of the ports for PM10 and PM2.5 sampling. Where notified in writing by the Environment Agency that the requirements are not met, the operator shall submit proposals or further proposals for rectifying this in accordance with the time scale in the notification. The proposals shall be implemented in accordance with the Environment Agency's written approval.	Report to be submitted to the Agency within 3 months of completion of commissioning.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO1	Prior to the commencement of commissioning, the Operator shall send a summary of the site Environment Management System (EMS) to the Environment Agency and obtain the Environment Agency's written approval to the EMS summary. The summary shall include a copy of the full other than normal operating conditions (OTNOC) management plan which shall be prepared in accordance with BAT 18 of the BAT conclusions and include: • a list of potential OTNOC situations that are considered to be abnormal operation under the definition in Schedule 6 of this permit. • a definition of start-up and shut-down conditions having regard to any Environment Agency guidance on start-up and shut-down. • any updates on the design of critical equipment to minimise OTNOC since the permit application The Operator shall make available for inspection all documents and procedures which form part of the EMS. The EMS shall be developed in line with the requirements set out in Environment Agency web guide on developing a management system for environmental permits (found on www.gov.uk), BAT 1 of the incineration BAT conclusions and BAT 1 of the waste treatment BAT conclusions. The EMS shall include the approved OTNOC management plan. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.
PO2	Prior to the commencement of commissioning, the Operator shall send a report to the Environment Agency, and obtain the Environment Agency's written approval to it, which will contain a comprehensive review of the options available for utilising the heat generated, including operating as CHP or supplying district heating, by the waste incineration process in order to ensure that it is recovered as far as practicable. The review shall detail any identified proposals for improving the recovery and utilisation of heat and shall provide a timetable for their implementation.
PO3	Prior to the commencement of commissioning, the Operator shall submit to the Environment Agency, and obtain the Environment Agency's written approval to it, a protocol for the sampling and testing of incinerator bottom ash for the purposes of assessing its hazard status. Sampling and testing shall be carried out in accordance with the protocol as approved.
PO4	Prior to the commencement of commissioning, the Operator shall submit to the Environment Agency, and obtain the Environment Agency's written approval to it, a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO5	Prior to the commencement of commissioning, the Operator shall submit a written report to the Agency, and obtain the Environment Agency's written approval to it, detailing the waste acceptance procedure to be used at the site. The waste acceptance procedure shall include the process and systems by which wastes unsuitable for pre-treatment, incineration, IBA treatment and IBAA blending at the site will be controlled. The procedure shall be implemented in accordance with the written approval from the Environment Agency.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO6	No later than one month after the final design of the furnace and combustion chamber, the operator shall submit a written report to the Environment Agency, and obtain the Environment Agency's written approval to it, of the details of the computational fluid dynamic (CFD) modelling. The report shall explain how the furnace has been designed to comply with the residence time and temperature requirements as defined by Chapter IV and Annex VI of the IED whilst operating under normal load and the most unfavourable operating conditions (including minimum turn down and overload conditions), and that the design includes sufficient monitoring ports to support subsequent validation of these requirements during commissioning.
PO7	At least 6 months prior to the commencement of commissioning the Operator shall submit an updated report for approval on the baseline conditions of soil and groundwater at the installation. The report shall contain the information necessary to determine the state of soil and groundwater contamination so as to make a quantified comparison with the state upon definitive cessation of activities provided for in Article 22(3) of the IED. The report shall contain all information needed to meet the information requirements of the EA H5 Site Condition Report Guidance Environmental permitting: H5 Site condition report - GOV.UK (www.gov.uk); and Article 22(2) of the IED including European Commission Guidance Note Concerning Baseline Reports under Article 22(2) (2014/C 136/03).
PO8	At least three months before (or other date agreed in writing with the Environment Agency) the commencement of commissioning, the Operator shall submit a written report to the Environment Agency, and obtain the Environment Agency's written approval to it, specifying arrangements for continuous and periodic monitoring of emissions to air (for all monitoring points listed in table S3.1) to comply with EN 15259 and Environment Agency guidance notes on monitoring stack emissions measuring locations, techniques and standards for periodic monitoring and TGN M20 for quality assurance of CEMS. The report shall include the following: • Details of monitoring locations, access and working platforms • Evidence that CEMS are MCERTS certified at the appropriate range • Evidence that data handling and acquisition systems are MCERTS certified • Methods and standards for periodic monitoring • Procedures for the quality assurance of CEMS, which includes evidence of completion of CEMS' functional tests and setting up quality assurance level (QAL) 3 checks, prior to completing a QAL2
PO9	At least 3 months before the commencement of commissioning (or other date agreed in writing with the Environment Agency) the Operator shall submit, for approval by the Environment Agency, a methodology (having regard to Technical Report P4-100/TR Part 2 Validation of Combustion Conditions) to verify the residence time, minimum temperature and oxygen content of the gases in the furnace whilst operating under normal load, minimum turn down and overload conditions.
PO10	<u>Design of NOx Abatement</u> No later than one month after the final design of the furnace and combustion chamber, the operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain: • Confirmation of whether Flue Gas Recirculation (FGR) has been incorporated into the incineration design

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO11	IBA Drainage System At least 4 weeks prior to operation of Activity AR3, the operator shall submit a written report to the Environment Agency for assessment and written approval. The report should include: • Specifications of the lagoon • A written report by a qualified engineer that summarises the effectiveness and integrity of the site surfacing and lagoon design against CIRIA C736 • A maintenance and inspection regime.
PO12	Fire Prevention Plan At least 3 months before the commencement of any commissioning activities, the operator shall submit an updated Fire Prevention Plan to the Environment Agency for assessment and written approval. The plan must follow Environment Agency Fire Prevention Plan guidance. The Operator must implement the proposals in the plan as agreed with the Environment Agency.
PO13	Dust Management Plan At least 3 months before operation of the IBA facility, the operator shall submit an updated Dust Management Plan to the Environment Agency for assessment and written approval. The Operator must implement the proposals in the plan as agreed with the Environment Agency.
PO14	Monitoring and Maintenance Plan At least 6 months prior to the commencement of commissioning the Operator shall submit a written protocol in the form of a monitoring and maintenance plan for the monitoring of soil and groundwater for approval by the Environment Agency. The protocol shall demonstrate how the Operator will meet the requirements of Articles 14(1)(b), 14(1)(e) and 16(2) of the IED, the Water Framework Directive and Groundwater Daughter Directive As a minimum the plan should include but not be limited to the following; proposals for monitoring of soil quality, identification of monitoring points, sample collection methodology, sampling frequency, laboratory testing, baseline soil and groundwater quality, maintenance, inspection and contingency proposals, robust justification for the duration of periodic monitoring of soils and groundwater through a systematic appraisal of the risk of contamination and reporting requirements. This plan should also provide a methodology for the appropriate decommissioning of any redundant historic or current ground investigation boreholes present on the site which have been installed but which are not required for monitoring purposes. The procedures above shall be implemented in accordance with the written approval from the Environment Agency.
PO15	Borehole Decommissioning At least 3 months prior to the commencement of commissioning the Operator shall submit a validation report detailing how redundant historic and current ground investigation boreholes have been decommissioned for approval of the Environment Agency.

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for Activity AR1 – Waste incineration plant	
Maximum quantity	**The annual waste throughput for the waste incineration plant shall not exceed 500,000 tonnes (inclusive of the output from the Fuel Preparation Facility)**
Waste code	**Description**
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 03	plant-tissue waste
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 04	materials unsuitable for consumption or processing
02 05	**wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 06	**wastes from the baking and confectionery industry**
02 06 01	materials unsuitable for consumption or processing
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	**Wastes from the leather, fur and textile industries**
04 02	**wastes from the textile industry**
04 02 10	organic matter from natural products (for example grease, wax)
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres

Table S2.2 Permitted waste types and quantities for Activity AR1 – Waste incineration plant	
Maximum quantity	**The annual waste throughput for the waste incineration plant shall not exceed 500,000 tonnes (inclusive of the output from the Fuel Preparation Facility)**
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 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile 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
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	**wood, glass and plastic**
17 02 01	wood
18	**Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)**
18 01	**wastes from natal care, diagnosis, treatment or prevention of disease in humans**
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
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 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	**wastes from anaerobic treatment of waste**
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 01	screenings

Table S2.2 Permitted waste types and quantities for Activity AR1 – Waste incineration plant	
Maximum quantity	**The annual waste throughput for the waste incineration plant shall not exceed 500,000 tonnes (inclusive of the output from the Fuel Preparation Facility)**
Waste code	**Description**
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
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
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

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR8– Pre-treatment for incineration	
Maximum quantity	**The total quantity of waste accepted for the pre-treatment activity shall not exceed 200,000 tonnes per year**
Waste code	**Description**
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR8– Pre-treatment for incineration	
Maximum quantity	**The total quantity of waste accepted for the pre-treatment activity shall not exceed 200,000 tonnes per year**
Waste code	**Description**
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 08	wastes from sorting of paper and cardboard destined for recycling
04	**Wastes from the leather, fur and textile industries**
04 02	**wastes from the textile industry**
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
07	**Wastes from organic chemical processes**
07 02	**wastes from the MFSU of plastics, synthetic rubber and man-made fibres**
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	waste containing silicones other than those mentioned in 07 02 16
07 05	**wastes from the MFSU of pharmaceuticals**
07 05 14	solid wastes other than those mentioned in 07 05 13
12	**Wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 05	plastics shavings and turnings
15	**Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile 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

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR8– Pre-treatment for incineration	
Maximum quantity	**The total quantity of waste accepted for the pre-treatment activity shall not exceed 200,000 tonnes per year**
Waste code	**Description**
16	**Wastes not otherwise specified in the list**
16 03	**off-specification batches and unused products**
16 03 04	inorganic wastes other than those mentioned in 16 03 03
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 03	plastic
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
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 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 01	solid waste from primary filtration and screenings
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 04	plastic and rubber
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard

Table S2.3 Permitted waste types and quantities for Activities AR2, AR3 and AR8– Pre-treatment for incineration	
Maximum quantity	**The total quantity of waste accepted for the pre-treatment activity shall not exceed 200,000 tonnes per year**
Waste code	**Description**
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 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 07	bulky waste

Table S2.4 Permitted waste types and quantities for AR4 and AR10 – IBA treatment and storage activities	
Maximum quantity	**The total quantity of waste accepted for the IBA treatment and storage activities (including output from AR1 waste incineration facility), shall not exceed 180,000 tonnes per year.**
Waste code	**Description**
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 01	**wastes from incineration or pyrolysis of waste**
19 01 12	bottom ash and slag other than those mentioned in 19 01 11

Table S2.5 Permitted waste types and quantities for AR14 – Blending waste operation	
Maximum quantity	**80,000 tonnes per year**
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
10	**Wastes from thermal processes**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 03	fly ash from peat and untreated wood
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14

Table S2.5 Permitted waste types and quantities for AR14 – Blending waste operation	
Maximum quantity	**80,000 tonnes per year**
Waste code	**Description**
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 09	minerals (for example sand, stones)
19 13	**wastes from soil and groundwater remediation**
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01

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, A2 (as shown on the site plan in Schedule 7)	Particulate matter	Flue gases from incineration lines 1 and 2	30 mg/m^3	½-hr average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Particulate matter	Flue gases from incineration lines 1 and 2	5 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Total Organic Carbon (TOC)	Flue gases from incineration lines 1 and 2	20 mg/m^3	½-hr average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Total Organic Carbon (TOC)	Flue gases from incineration lines 1 and 2	10 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Hydrogen chloride	Flue gases from incineration lines 1 and 2	60 mg/m^3	½-hr average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Hydrogen chloride	Flue gases from incineration lines 1 and 2	6 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Hydrogen fluoride	Flue gases from incineration lines 1 and 2	1 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year of operation. Then Bi-annually	CEN TS 17340
A1, A2 (as shown on the site plan in Schedule 7)	Carbon monoxide	Flue gases from incineration lines 1 and 2	150 mg/m^3	95% of all 10-minute averages in any 24-hour period	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, A2 (as shown on the site plan in Schedule 7)	Carbon monoxide	Flue gases from incineration lines 1 and 2	50 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Sulphur dioxide	Flue gases from incineration lines 1 and 2	200 mg/m^3	½-hr average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Sulphur dioxide	Flue gases from incineration lines 1 and 2	30 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Flue gases from incineration lines 1 and 2	400 mg/m^3	½-hr average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Flue gases from incineration lines 1 and 2	100 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Cadmium & thallium and their compounds (total)	Flue gases from incineration lines 1 and 2	0.02 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year. Then Bi-annually	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)**
A1, A2 (as shown on the site plan in Schedule 7)	Mercury and its compounds	Flue gases from incineration lines 1 and 2	0.02 mg/m^3 Limit does not apply if continuous monitoring has been specified by the Environment Agency	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year and accelerated monitoring at frequency agreed through IC 11. Then Bi-annually. Not required if continuous monitoring has been specified by the Environment Agency	EN 13211
A1, A2 (as shown on the site plan in Schedule 7)	Mercury and its compounds	Flue gases from incineration lines 1 and 2	0.02 mg/m^3	Daily average	Continuous Not required unless continuous monitoring has been specified by the Environment Agency after completion of IC11 or if specified by the Environment Agency in line with sampling protocol	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	Flue gases from incineration lines 1 and 2	0.3 mg/m^3	Average of three consecutive measurements of at least 30 minutes each	Quarterly in first year. Then Bi-annually	EN 14385
A1, A2 (as shown on the site plan in Schedule 7)	Exhaust gas temperature	Flue gases from incineration lines 1 and 2	No limit set	-	Continuous	Traceable to national standards

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, A2 (as shown on the site plan in Schedule 7)	Exhaust gas pressure	Flue gases from incineration lines 1 and 2	No limit set	-	Continuous	Traceable to national standards
A1, A2 (as shown on the site plan in Schedule 7)	Exhaust gas flow	Flue gases from incineration lines 1 and 2	No limit set	-	Continuous	BS EN 16911-2
A1, A2 (as shown on the site plan in Schedule 7)	Exhaust gas oxygen content	Flue gases from incineration lines 1 and 2	No limit set	-	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Exhaust gas water vapour content	Flue gases from incineration lines 1 and 2	No limit set	-	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Ammonia (NH_3)	Flue gases from incineration lines 1 and 2	10 mg/m^3	daily average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Ammonia (NH_3)	Flue gases from incineration lines 1 and 2	7 mg/m^3	monthly average	Continuous	EN 14181
A1, A2 (as shown on the site plan in Schedule 7)	Nitrous oxide (N_2O)	Flue gases from incineration lines 1 and 2	No limit set	½-hr average and daily average	Continuous	EN 14181 .
A1, A2 (as shown on the site plan in Schedule 7)	Carbon dioxide	Flue gases from incineration lines 1 and 2	No limit set	Continuous	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, A2 (as shown on the site plan in Schedule 7)	Dioxins / furans (I-TEQ)	Flue gases from incineration lines 1 and 2	0.04 ng/m^3 and 0.06 ng/m^3 if long term limit is specified by the Environment Agency after completion of IC10 or specified by the Environment Agency in line with sampling protocol	periodic over minimum 6 hours, maximum 8 hour period and value over sampling period of 2 to 4 weeks for long term sampling	Monthly for first 6 months and accelerated monitoring as agreed through IC10, quarterly for following 6 months and then bi-annually; and long term monitoring if specified by the Environment Agency after completion of IC10 or specified by the Environment Agency in line with sampling protocol	EN 1948 Parts 1, 2 and 3 and CEN TS 1948-5 if specified by the Environment Agency after completion of IC10 or specified by the Environment Agency in line with sampling protocol
A1, A2 (as shown on the site plan in Schedule 7)	Dioxin-like PCBs (WHO-TEQ Humans / Mammals, Fish, Birds)	Flue gases from incineration lines 1 and 2	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly for first year then bi-annually	EN 1948 Parts 1, 2 and 4
A1, A2 (as shown on the site plan in Schedule 7)	Dioxins / furans (WHO-TEQ Humans / Mammals, Fish, Birds)	Flue gases from incineration lines 1 and 2	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annually	EN 1948 Parts 1, 2 and 3

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, A2 (as shown on the site plan in Schedule 7)	Polybrominated dibenzo-dioxins and furans	Flue gases from incineration lines 1 and 2	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annually	Method based on procedural requirements of EN 1948
A1, A2 (as shown on the site plan in Schedule 7)	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Flue gases from incineration lines 1 and 2	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year then annually	BS ISO 11338 Parts 1 and 2.
A3 (location to be agreed in writing with the Environment Agency)	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)	First measurement within 4 months of first operation then every 1500 hours of operation or once every five years (whichever comes first).	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, A2 (as shown on the site plan in Schedule 7)	Particulate matter	Flue gases from incineration lines 1 and 2	150 mg/m^3	½-hr average	Continuous	EN 14181 or alternative surrogate as agreed in writing with the environment agency during failure of the continuous emission monitor
A1, A2 (as shown on the site plan in Schedule 7)	Total Organic Carbon (TOC)		20 mg/m^3	½-hr average	Continuous	
A1, A2 (as shown on the site plan in Schedule 7)	Carbon monoxide		150 mg/m^3	95% of all 10-minute averages in any 24-hour period	Continuous	

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 (as shown on the site plan in Schedule 7)	Uncontaminated surface water run-off	No parameters set	No limit set	-	-	-

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**
-	-	-	-	-	-	-

Table S3.4 Annual limits			
Substance	**Medium**	**Limit (including unit)**	**Other specifications**
Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Emission via stacks A1 and A2	328.50 tonnes per year	Calculated from reported emission concentrations, exhaust gas flow rate and annual operating time
Ammonia (NH_3)	Emission via stacks A1 and A2	23.00 tonnes per year	

Table S3.5 Ambient air monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
In accordance with approved dust emissions management plan	Deposited dust	Daily	M17 guidance	Monitoring methods, trigger levels and actions as specified in approved dust emissions management plan
	Visual dust checks	Daily		

Table S3.6 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 in writing with the Environment 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 first operation and then 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	
At the IBA and IBAA waste stockpiles	Moisture content	As agreed under the updated dust emissions management plan required by PO13	As agreed under the updated dust emissions management plan required by PO13	

Table S3.7 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	TOC or otherwise as agreed in writing with the Environment Agency	3% or otherwise as agreed in writing with the Environment Agency	Monthly in the first year of operation. Then Quarterly or otherwise as agreed in writing with the Environment Agency	EN 14899 and either EN 13137 or EN 15936 or otherwise as agreed in writing with the Environment Agency	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'
Bottom Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs		Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
APC Residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs		Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	

Table S3.7 Residue quality					
Emission point reference or source or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method ***	**Other specifications**
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'	
Note 1: 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, A2	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
		Annually (for annual emissions in table S3.4)	1 Jan
Ambient air monitoring Parameters as required by condition 3.6.1	In accordance with approved dust emissions management plan	Bi-annually	1 Jan and 1 Jul
Process monitoring Parameters as required by condition 3.6.1	Moisture content at the IBA and IBAA waste stockpiles	Bi-annually	1 Jan and 1 Jul
TOC Parameters as required by condition 3.6.1	Bottom Ash (produced through activity AR1)	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	Bottom Ash (produced through activity AR1)	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.6.1	Bottom Ash (produced through activity AR1)	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	APC Residues	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Parameters as required by condition 3.6.1			
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 Waste Incinerated	tonnes
Electrical energy produced	kWh
Thermal energy produced e.g. steam/water for export	kWh
Electrical energy exported	kWh
Electrical energy used on installation	kWh
Waste heat utilised by the installation	kWh
Incinerator bottom ash treated	tonnes
Incinerator bottom ash aggregate exported	tonnes

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
Mass of Bottom Ash residue produced	Annually	Route, tonnes and tonnes / tonne of waste incinerated
Mass of APC residue produced	Annually	Route, tonnes and tonnes / tonne of waste incinerated
Mass of other solid residues produced	Annually	Route, tonnes and tonnes / tonne of waste incinerated
Ammonia consumption	Annually	kg / tonne of waste incinerated
Activated Carbon consumption	Annually	kg / tonne of waste incinerated

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Lime 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	-
Air	Forms air 1-10 or other forms as agreed in writing by the Environment Agency	17/01/2025
Residue quality	Form residue 1 and 2 or other form as agreed in writing by the Environment Agency	17/01/2025

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

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

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

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

“CEM” Continuous emission monitor

“CEN” means Commité Européen de Normalisation

“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 or background concentration limit.

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

“Hazardous property” has the meaning in Annex lll of the Waste Framework Directive

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface

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

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

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

“ISO” means International Standards Organisation.

“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

“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.

“sealed surface system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

(a) no liquids will run off the surface otherwise than via the system

(b) all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer

“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 as 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 as agreed in writing with the Environment Agency.

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

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

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

“year” means calendar year ending 31 December.

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

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

(a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

(b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content;

(c) 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
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

When the following terms appear in the waste code list in Schedule 2, table S2.2, S2.3, S2.4 S2.5, for that table/those tables, 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

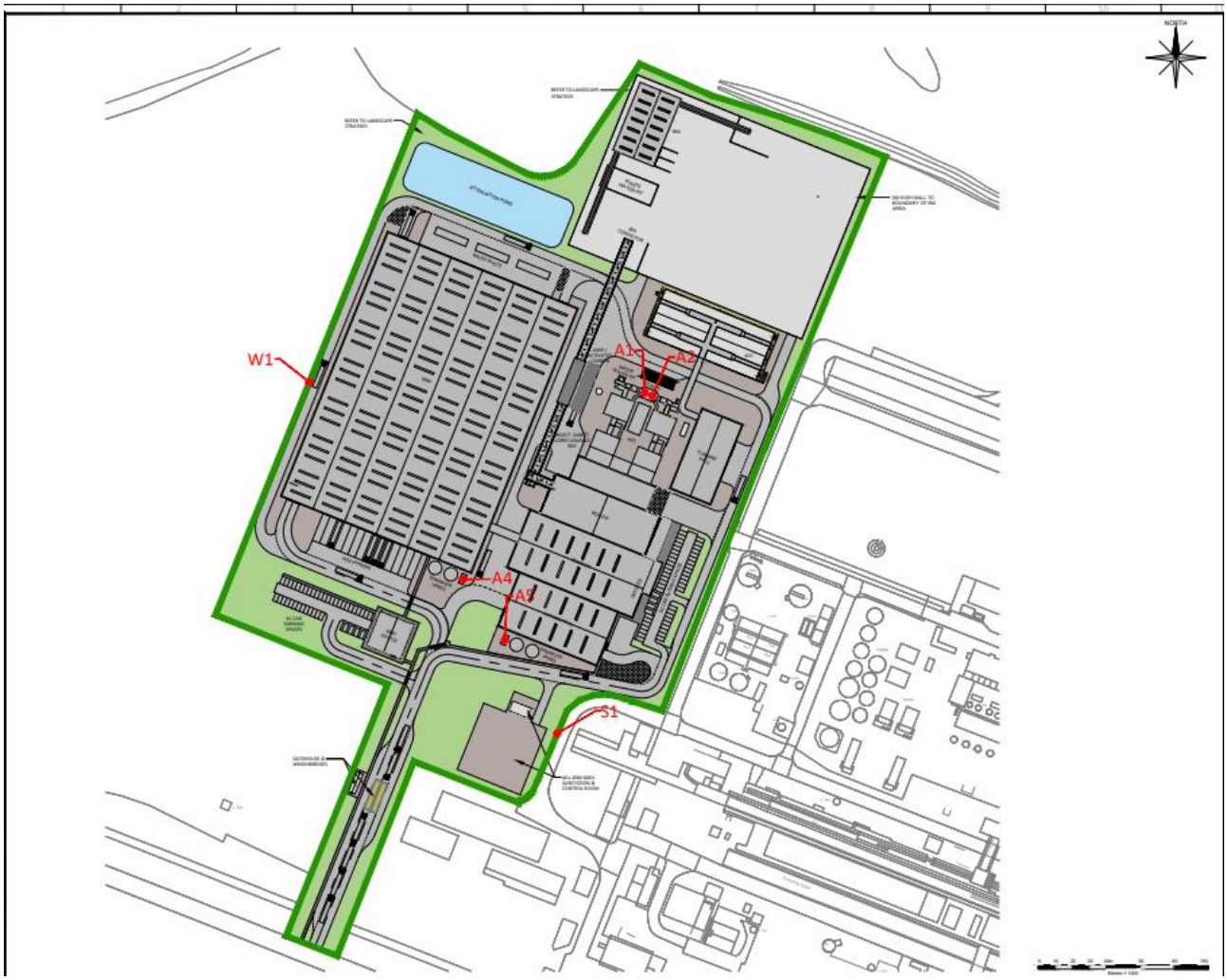
‘transition metals’ means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified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



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