

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

North London Waste Authority

Edmonton EcoPark
Advent Way
Edmonton
London
N18 3AG

Variation application number

EPR/UP3232AC/V002

Permit number

EPR/UP3232AC

Edmonton EcoPark

Permit number EPR/UP3232AC

Introductory note

This introductory note does not form a part of the notice

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

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

This permit controls the operation of a regulated facility consisting of two incineration lines and associated infrastructure (energy recovery plant), a household and commercial re-use and recycling centre, a recycling and fuel preparation facility including a gully waste management facility and a waste water treatment plant. The incineration and waste water treatment activities are Part A(1) activities under the Environmental Permitting Regulations (EPR) and the re-use and recycling centre, recycling and fuel preparation facility and gully waste management facility are waste operations under EPR.

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

This variation authorises the following changes:

1. An increase in the electrical output of the steam turbine / generator from 70MWe to 78MWe to allow for fluctuations in waste calorific values. No changes have been made to the waste input or emission concentrations.
2. An increase in the site boundary, to include an access road where no waste processing will take place.
3. The redesign of the surface water drainage system to relocate W1 (to become W2) and to add two new discharge points (W3 and W4). Surface water from the northern and western areas of the site will discharge, via oil interceptors and an attenuation tank to Salmon's Brook (W3) Surface water from the southern area of the site will discharge, via oil interceptors and attenuation tank to Enfield Ditch (W4). All discharge points only discharge uncontaminated surface water.

The rest of the installation is unchanged and continues to be operated as follows:

The Edmonton EcoPark is a waste management complex approximately 16 hectares in size. It is located in the London Borough of Enfield and accessed via Advent Way, which leads onto the A406 North Circular Road.

Energy recovery plant

The relevant listed Part A(1) activity for the incinerator is Section 5.1 Part A(1)(b), the incineration of non-hazardous waste in a waste incineration plant with a capacity exceeding 3 tonnes per hour. This incineration activity will be located on the northern section of the site.

The incineration activity will generate electricity using residual waste as a fuel. The activity will comprise two process lines, each with a capacity of 350,000 tonnes per annum. The lines will utilise moving grate technology with an associated heat recovery boiler, flue gas treatment plant and stack.

The waste derived fuels, consisting of municipal solid waste (MSW) and commercial and industrial waste including some non-hazardous clinical waste will be delivered to site by road, and also from the on-site recycling and fuel preparation facility. Incoming waste will be stored indoors within the waste reception and processing buildings.

A separate waste reception area and loading system will accept small quantities of non-hazardous clinical waste. The clinical waste will arrive in sealed bags and containers and be conveyed directly to the waste feed hoppers.

Combustible waste is transferred to the incinerator either directly from refuse collection vehicles or via internal transfers via dedicated vehicles from the fuel preparation facility. Air from the building enclosing the waste bunker is extracted and used as combustion air within the incinerators. When the incinerators are not operational a carbon filter odour control unit will treat the extracted air prior to discharge.

Combustion gases are then passed through a boiler to raise steam, which is utilised within a steam turbine to generate a maximum of 78MWe electricity.

Combustion gases will be cleaned before they are released to atmosphere. There are several components to the flue gas cleaning and abatement as follows.

- Acid gases removal (lime injection or equivalent) or scrubbing;
- Heavy metal, dioxins and furans removal (carbon injection or equivalent);
- Particulate matter removal (bag filter plant or equivalent);
- Urea / ammonia injection prior to a catalyst for reduction of oxides of nitrogen (Selective Catalytic Reduction); and
- Polishing wet scrubbing system.

Cleaned flue gases are discharged to atmosphere through a 100 metre tall stack. Exhaust flue gases will be continuously monitored for particulates, oxides of nitrogen, sulphur dioxide, carbon monoxide, total organic carbon and hydrogen chloride. Monitoring for heavy metals, dioxins and hydrogen fluoride will be carried out periodically.

Foul and trade effluent will be collected on site and discharged to public sewer. As well as sewage from staff welfare facilities, the discharge from the incineration activity will include small quantities of process effluent such as boiler blowdown and wastewaters from water demineralisation.

The incineration process results in several waste streams including bottom ash; fly ash; and air pollution control residues (APCr) from the flue gas treatment process; and non-combustible materials from the mechanical treatment plant. These materials will be temporarily stored on site prior to recovery or disposal in a suitably licensed off-site facility.

Two diesel engines with an aggregated capacity of 4MWe will provide emergency electrical power to the plant in the event of supply interruption.

The permit sets conditions controlling the management, operation and the control of emissions from the incineration activity, including the monitoring and reporting of emissions to all environmental media.

Wastewater treatment plant

A wastewater treatment plant (WWTP) Part A(1) activity will also be located on the northern part of the EcoPark site. This facility will be designed to treat a number of liquid effluents and wastewater streams prior to discharge to sewer. The anticipated effluent flows to the WWTP will include boiler blowdown, effluent from the demineralisation water plant, gully waste and wastewater from wash down areas.

The WWTP will consist of a physico-chemical treatment system including settlement, removal of solids, chemical dosing and final polishing with carbon filters or sand filters. The WWTP will discharge to sewer under consent from Thames Water.

The final design of the WWTP including the listed activity under which it will operate will be confirmed during the design phase. The following activities are listed within the permit to cover the WWTP operation:

- Section 5.4 Part A(1)(a)(ii) - Disposal or recovery of non-hazardous waste in a plant with a capacity exceeding 50 tonnes per day.
- Section 5.3 Part A(1)(a)(ii) - Disposal or recovery of hazardous waste in a plant with a capacity exceeding 10 tonnes per day.

Resource Recovery Facility

The southern part of the regulated facility is made up of two distinct areas covering the operation of a recycling and fuel preparation facility and a resource recovery centre, both waste operations.

Recycling and fuel preparation facility

The recycling and fuel preparation facility (RFPF) will consist of a large building with a concrete floor with a capacity to manage approximately 378,000 tonnes of waste annually. It will consist of an enclosed reception hall with sorting, preparation and storage areas located in the southern area of the EcoPark. There will be discrete areas for the reception and bulking of different material streams, for example; trade waste, residual waste, bulky waste and green waste.

Manual or mechanical sorting from picking belts will remove recyclables, oversize and incombustible wastes. Wastes suitable for incineration such as portions of trade waste, residual waste and oversized combustible wastes will be shredded.

Waste that is suitable for combustion after pre-treatment will be treated and transferred to the waste bunker of the incinerator via the internal road system or removal via road to an alternative licenced facility. Bulky waste and residual waste containing materials suitable for recycling will be moved to the sorting line where it will be sorted and stored for removal from site for additional processing or recycling.

A carbon filter odour control unit will extract air from RFPF building.

Dewatering of gully waste will take place in a dedicated area with an approximate throughput of 4,000 tonnes of waste annually. Gravity separation of entrained liquids to a drainage system via an interceptor to the site wastewater treatment plant.

Reuse and Recycling centre

The reuse and recycling centre (RRC) will receive waste from the general public and small traders. The RRC will handle approximately 8,000 tonnes of waste per year. The RRC will comprise a main reception area with sufficient space for the circulation of vehicles and pedestrians, parking areas and direct access to dedicated containers for hand unloading of recyclable materials and residual waste.

The RRC will be covered and the public area elevated above the operational area for users to deposit waste into containers or bays over a safety barrier. The majority of full containers will be sent off site to a suitably licensed third party operator for recycling, reuse or reprocessing.

Wastes suitable for incineration such as portions of trade waste and oversized combustible wastes will be transferred to the RFPF for shredding.

The surface water drainage system for surface water run-off will discharge via oil interceptors to Enfield Ditch.

To the north of the EcoPark are a number of industrial and commercial premises beyond which lies a Waste Water Treatment Plant. The Lee Valley Regional Park is located to the east of the EcoPark. The A406 North Circular Road is located to the south beyond which are retail and trading estates. To the West is Salmon's Brook watercourse. The nearest residential properties are approximately 500m to the east and 600m to the west of the proposed main stack.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application EPR/UP3232AC/A001	Duly made 07/03/16	Application for a new bespoke permit authorising an incineration activity, a waste water treatment plant and three waste activities.

Status log of the permit		
Description	Date	Comments
Response to Schedule 5 notice dated 19/04/16	25/05/16	Additional information relating to noise, air quality, fire risk, odour and waste management
Response to Schedule 5 notice dated 15/08/16	06/09/16	Additional information relating to emissions to air and energy efficiency
Response to Schedule 5 notice dated 19/12/16	25/01/17	Additional information relating to waste acceptance, treatment and water abstraction.
Additional information received	08/02/17	Additional information relating to waste types and waste storage capacity.
Additional information received	14/03/17	Additional information relating to waste types.
Permit determined EPR/UP3232AC/A001	16/06/17	Permit determined and issued to North London Waste Authority.
Application EPR/UP3232AC/V002 (variation and consolidation)	Duly made 13/03/19	Application to increase electrical output, increase site boundary and include additional surface water discharge points.
Variation determined EPR/UP3232AC	13/05/19	Consolidated permit issued.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

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

Permit number

EPR/UP3232AC

Issued to

North London Waste Authority (“the operator”)

of

**Camden Town Hall
Judd Street
London
WC1H 9JE**

to operate a regulated facility at

**Edmonton EcoPark
Advent Way
Edmonton
London
N18 3AG**

to the extent set out in the schedules.

The notice shall take effect from 13/05/2019

Name	Date
Daniel Timney	13/05/2019

Authorised on behalf of the Environment Agency

Schedule 1

Only condition 2.2.1, Table S1.1 activities, Table S1.2 Operating techniques, Table S1.3 Improvement programme requirements, Table S3.3 Point Source emissions and Schedule 7 site plan have been varied by the consolidated permit EPR/UP3232AC/V002 as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/UP3232AC

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/UP3232AC/V002 authorising,

North London Waste Authority (“the operator”),

of

**Camden Town Hall
Judd Street
London
WC1H 9JE**

to operate an installation at

**Edmonton EcoPark
Advent Way
Edmonton
London
N18 3AG**

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

Name	Date
Daniel Timney	13/05/2019

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR5) 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 incineration plant, 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 incineration plant, 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 DECC 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 AR5) 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 AR5) waste authorised by this permit shall be clearly distinguished from any other waste on the site.
- 2.1.3 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.
- 2.1.4 The incinerator shall not operate when the existing incinerator on the Edmonton site (authorised by permit EPR/YP3033BE issued on 31/07/2007) is in operation with the exception of commissioning works.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green, excluding the grey hashed area, 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, S2.5 and S2.6; and
 - (b) it conforms to the description in the documentation supplied by the producer or holder.
- 2.3.5 Where waste has been separately collected for recycling, it shall only be incinerated if it is unsuitable for recovery by recycling.
- 2.3.6 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.
- 2.3.7 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.
- 2.3.8 Waste shall not be charged, or shall cease to be charged to the incineration lines, if:
- (a) the combustion chamber temperature is below, or falls below, 850°C; or
 - (b) any continuous emission limit value in schedule 3 table S3.1 is exceeded, other than under abnormal operating conditions; or
 - (c) monitoring results required to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 are unavailable other than under abnormal operating conditions.
- 2.3.9 The operator shall have at least one auxiliary burner in each line of the incineration plant at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.8, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.8 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.10 The operator shall record the beginning and end of each period of “abnormal operation”.
- 2.3.11 During a period of “abnormal operation”, the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.
- 2.3.12 Where, during “abnormal operation”, on an incineration line, any of the following situations arise, waste shall cease to be charged on that line until normal operation can be restored:
- (a) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 due to disturbances or failures of the abatement systems, or continuous emission monitor(s) are out of service, as the case may be, for a total of 4 hours uninterrupted duration;
 - (b) the cumulative duration of “ abnormal operation” periods over 1 calendar year has reached 60 hours;
 - (c) continuous measurement shows that an emission exceeds any emission limit value in schedule 3 table S3.1 (a) due to disturbances or failures of the abatement systems;

- (d) continuous emission monitors or alternative techniques to demonstrate compliance with the emission limit value(s) for particulates, TOC and / or CO in schedule 3 table S3.1 (a), as agreed in writing with the Environment Agency, are unavailable.

2.3.13 The operator shall interpret the end of the period of “abnormal operation” as the earliest of the following:

- (a) when the failed equipment is repaired and brought back into normal operation;
- (b) when the operator initiates a shut down of the waste combustion activity, as described in the application or as agreed in writing with the Environment Agency;
- (c) when a period of four hours has elapsed from the start of the “abnormal operation”;
- (d) when, in any calendar year, an aggregated period of 60 hours “abnormal operation” has been reached.

2.3.14 Bottom ash and APC residues shall not be mixed.

2.3.15 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

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, S3.3 and S3.4 except in “abnormal operation”, when there shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1(a), S3.2, S3.3 and S3.4.

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

3.1.3 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S3.6 Additional samples shall be taken and tested and appropriate action taken, whenever:

- (a) disposal or recovery routes change; or
- (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The Operator shall carry out monitoring of soil and groundwater in accordance with IED articles 14(1)(b), 14(1)(e) and 16(2) to the protocol agreed in writing with the Environment Agency under PO8.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1, S3.1(a), S3.2, S3.3 and S3.4;
 - (b) process monitoring specified in table S3.5;
 - (c) residue quality in table S3.6
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Environment Agency. Newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 1.5 times the daily emission limit value (ELV) specified in schedule 3 table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.1(a), S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1; the Continuous Emission Monitors shall be used such that;
- (a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages of the emission limit 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%
 - (b) valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods) from the measured values after having subtracted the value of the confidence intervals in condition 3.5.5 (a);
 - (c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average shall in any case be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. The number of half-hourly averages so validated shall not exceed 5 per day;
 - (d) daily average values shall be determined as the average of all the valid half-hourly average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly average values in any day have been determined not to be valid;
 - (e) no more than ten daily average values per year shall be determined not to be valid.

3.6 Pests

- 3.6.1 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.

3.6.2 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, hazard or annoyance from pests;
- (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

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

3.7.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

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

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR5) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and

- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
 - (d) the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Chapter IV of the Industrial Emissions Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the IED.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

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

Where the operator is a registered company:

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

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

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

In any other case:

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

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

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

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

4.4 Interpretation

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	S5.1 A1 b)	The incineration of non-hazardous waste in a waste incineration plant with a capacity of 3 tonnes per hour or more.	<p>Operation of two incinerator lines from receipt of waste to emission of exhaust gas and disposal of waste arising.</p> <p>Flue gas treatment by either a dry or combined system.</p> <p>Waste types and quantities as specified in Table S2.2 of this permit.</p>
AR2	S5.3 A1 a) ii) OR S5.4 A1 a) ii)	<p>Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.</p> <p>Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment.</p>	<p>Operation of an effluent treatment plant from receipt of effluent to discharge to sewer.</p> <p>No input of incinerator bottom ash leachate to the effluent treatment plant.</p>
Directly Associated Activities			
AR3	Electricity Generation	Generation of upto 78 MWe electrical power using steam turbines from energy recovered from the flue gases.	From receipt of steam to export of electricity for either on-site use or export to the grid
AR4	Back up diesel engines	Use of two diesel engines with an aggregated capacity of 4MWe for providing emergency electrical power to the plant in the event of supply interruption.	From receipt of fuel to generation of electricity for on-site use and emission of exhaust gases
AR5	Abstraction of water from Deephams Sewage Treatment Works outfall	Abstraction of water via a pumping system for use as process waters following appropriate treatment.	<p>A meter to measure quantities of water abstracted must be in place and must be maintained, repaired or replaced as required to ensure that accurate measurements are recorded at all times.</p> <p>A screen shall be installed to prevent the entrapment, entrainment or impingement of eel at the point of abstraction. The screen shall be maintained, repaired or replaced as required to ensure the screen remains effective at all times.</p>
Waste activities			

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR6	Recycling and fuel preparation facility	<p>D15: storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>D14: Repackaging prior to submission to any of the operations numbered D1 to D13</p> <p>R3: Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic materials</p>	<p>Receipt, storage and treatment of waste received at the recycling and fuel preparation facility.</p> <p>Treatment consisting only of manual sorting and separation to remove recyclable, oversize and incombustible wastes.</p> <p>Only wastes suitable for incineration will be shredded.</p> <p>Treatment by shredding for recovery only.</p> <p>Storage of hazardous waste for activities AR6 and AR8 aggregated is limited to less than 50 tonnes at any one time.</p> <p>Waste types as specified in table S2.3 and S2.4.</p>
AR7	Gully waste management	<p>Dewatering of non-hazardous gully waste.</p> <p>R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R3: Recycling/reclamation of organic substances which are not used as solvents</p> <p>D15: storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p>	<p>Treatment consisting only of sorting, separation and de-watering of non-hazardous gully waste with a capacity of less than 50 tonnes per day.</p> <p>From receipt of gully waste to dispatch of waste to incineration plant or an alternative treatment / disposal option and discharge of effluent to wastewater treatment plant.</p> <p>Waste types and quantities as specified in table S2.5.</p>

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR8	Household and trade recycling recovery centre (reuse and recycling centre)	<p>D15: storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>D14: Repackaging prior to submission to any of the operations numbered D1 to D13</p> <p>D9: Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12</p> <p>R3: Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic materials</p>	<p>Receipt, storage and treatment of waste received at the household waste recycling centre (reuse and recycling centre) through to transfer to the incineration activity or transfer offsite for recovery or disposal.</p> <p>Treatment consisting only of manual sorting and separation of waste into different components for disposal or recovery.</p> <p>Transfer of wastes suitable for incineration such as portions of trade waste and oversized combustible wastes to the RFPF for shredding.</p> <p>No more than 50 tonnes per day of non-hazardous waste to be treated for disposal.</p> <p>Storage of hazardous waste for activities AR6 and AR8 aggregated is limited to less than 50 tonnes at any one time.</p> <p>Waste types and quantities as specified in table S2.6.</p>

Description	Parts	Date Received
Application EPR/UP3232AC/A001	<ul style="list-style-type: none"> • Parts B2 and B3 of the Application Form including technical standards listed in Table 3a of form B3. • The Supporting Information documents referenced: <ul style="list-style-type: none"> ○ <i>Final Report 15568i2</i> excluding all references to wet flue gas treatment. ○ Appendix B - Site Report ○ Appendix E - EMS certification ○ Appendix I - Furnace type BAT assessment 	Duly Made 07/03/16

Table S1.2 Operating techniques		
Description	Parts	Date Received
	<ul style="list-style-type: none"> ○ Appendix J, Part 1 – Design of ERF Plant excluding all references to wet flue gas treatment. ○ Appendix J, Part 2 – Bunker design and capacity ○ Appendix J, Part 3 – ERF Process Design excluding all references to wet flue gas treatment. ○ Appendix J, Part 4 – ERF Process Design excluding all references to wet flue gas treatment. ○ Appendix J, Part 5 - Odour control strategy ○ Appendix L - Competence ● Response to Not Duly Made email questions 2 - 5 covering the following: <ul style="list-style-type: none"> ○ Question 2 - Revised noise assessment ○ Question 3 - 5 - Air quality. 	
Response to Schedule 5 Notice dated 19/04/16, EPR/UP3232AC/A001	<ul style="list-style-type: none"> ● Response to Schedule 5 questions 1 - 6 covering the following: <ul style="list-style-type: none"> ○ Question 1 - Waste acceptance ○ Question 2 - Waste treatment ○ Question 3 - Odour ○ Question 4 - Fire risk ○ Question 5 - Effluent treatment ○ Question 6 - Noise 	25/05/16
Response to Schedule 5 Notice dated 19/04/16, EPR/UP3232AC/A001	<ul style="list-style-type: none"> ● Fire Strategy V3.1 dated 12/08/15 ● ERF Fire Safety Strategy dated 14 June 2015 	25/05/16
Response to Schedule 5 Notice dated 15/08/16, EPR/UP3232AC/A001	<ul style="list-style-type: none"> ● Technical note 16338i2 ● CHP Development strategy 	06/09/16
Response to Schedule 5 Notice dated 19/12/16, EPR/UP3232AC/A001	<ul style="list-style-type: none"> ● Response to Schedule 5 questions 1 - 6 covering the following: <ul style="list-style-type: none"> ○ Questions 1 - 4: Waste acceptance ○ Question 5 - Waste treatment ○ Question 6 - Water abstraction 	25/01/17
Additional information received	Information relating to waste types and waste storage capacity.	08/02/17
Application EPR/UP3232AC/V002	Responses to Part C2 and C3 of the application form and referenced supporting documentation.	06/12/18
Additional information received	Additional information including: <ul style="list-style-type: none"> ○ Drainage plans for surface water discharge points W2, W3 and W4 (references: NP-WOD-XXXX-B01-DR-DR-06_001, NP-WOD-XXXX-B01-DR-DR-06_002 and NP-WOD-XXXX-B01-DR-DR-06_003) 	10/04/19

Table S1.3 Improvement programme requirements		
Reference	Improvement measure	Completion date

IC1A	The Operator shall submit a written report to the Environment Agency on the implementation of the resource recovery facility Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.	Within 12 months of the completion of commissioning of the resource recovery facility.
IC1B	The Operator shall submit a written report to the Environment Agency on the implementation of the energy recovery facility Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.	Within 12 months of the date on which waste is first burnt.
IC2	The Operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1 and A2, identifying the fractions within the PM ₁₀ , and PM _{2.5} ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out such tests and produce a report on the results. On receipt of written agreement by the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report on the results.	Within 6 months of the completion of commissioning of the energy recovery facility.
IC3A	The Operator shall submit a written report to the Environment Agency on the commissioning of the resource recovery facility. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the completion of commissioning of the resource recovery facility.
IC3B	The Operator shall submit a written report to the Environment Agency on the commissioning of the energy recovery facility. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the completion of commissioning of the energy recovery facility.
IC4	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to the Environment Agency.	Within 4 months of the completion of commissioning of the energy recovery facility.
IC5	The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the Selective Catalytic Reduction (SCR) system and combustion settings to minimise oxides of nitrogen (NO _x) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO _x and N ₂ O emissions that can be achieved under optimum operating conditions.	Within 4 months of the completion of commissioning of the energy recovery facility.

	The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins.	
IC6	The Operator shall submit a written summary report to the Agency to confirm by the results of calibration and verification testing that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 and Table S3.1(a) complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.	Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning of the energy recovery facility. Full summary evidence compliance report to be submitted within 18 months of commissioning of the energy recovery facility.
IC7	The operator shall submit a drainage plan to the Environment Agency to confirm the routes of both foul effluent, "domestic" effluent and surface water run off/discharge.	Within 3 months of the site being commissioned and fully operational.

Table S1.4 Pre-operational measures		
Reference	Operation	Pre-operational measures
PO1A	Resource recovery facility (AR6, AR7, AR8)	Prior to the commencement of commissioning of the resource recovery facility, the Operator shall send a summary of the site Environment Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS including operational procedures relevant to the energy recovery facility. 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). 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.
PO1B	Energy recovery facility (AR1)	Prior to the commencement of commissioning of the energy recovery facility, the Operator shall send a summary of the site Environment Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS including operational procedures relevant to the energy recovery facility. 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). 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	Energy recovery facility (AR1)	Prior to the commencement of construction, the Operator shall send a report to the Environment Agency which will contain a comprehensive review of the options available for utilising the heat generated by the waste incineration process in order to ensure that it is recovered as far as practicable. The review shall detail any identified proposals for improving the recovery and utilisation of waste heat and shall provide a timetable for their implementation.

Table S1.4 Pre-operational measures		
Reference	Operation	Pre-operational measures
PO3	Energy recovery facility (AR1)	Prior to the commencement of commissioning, the Operator shall submit to the Environment Agency for approval a protocol for the sampling and testing of incinerator bottom ash for the purposes of assessing its hazard status. Sampling and testing shall be carried out in accordance with the protocol as approved.
PO4A	Resource recovery facility (AR6, AR7, AR8)	Prior to the commencement of commissioning of the resource recovery facility; the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO4B	Energy recovery facility (AR1)	Prior to the commencement of commissioning of the energy recovery facility; the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO5A	Resource recovery facility (AR6, AR7, AR8)	Prior to the commencement of commissioning of the resource recovery facility, the Operator shall submit a written report to the Agency detailing the waste acceptance procedure to be used at the site. The waste acceptance procedure shall include the process and systems by which wastes unsuitable for incineration at the site will be controlled. The procedure shall be implemented in accordance with the written approval from the Environment Agency.
PO5B	Energy recovery facility (AR1)	Prior to the commencement of commissioning of the energy recovery facility, the Operator shall submit a written report to the Agency detailing the waste acceptance procedure to be used at the site. The waste acceptance procedure shall include the process and systems by which wastes unsuitable for incineration at the site will be controlled. The procedure shall be implemented in accordance with the written approval from the Environment Agency.
PO6	Energy recovery facility (AR1)	After completion of furnace design and at least three calendar months before any furnace operation; the operator shall submit a written report to the Agency of the details of the computational fluid dynamic (CFD) modelling. The report shall demonstrate whether the design combustion conditions comply with the residence time and temperature requirements as defined by Chapter IV of the IED.
PO7A	Resource recovery facility	Prior to the commencement of commissioning, the Operator shall submit a report 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

Table S1.4 Pre-operational measures		
Reference	Operation	Pre-operational measures
		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 information, supplementary to that already provided in application Site Condition Report, needed to meet the information requirements of Article 22(2) of the IED.
PO7B	Energy recovery facility (AR1)	Prior to the commencement of commissioning, the Operator shall submit a report 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 information, supplementary to that already provided in application Site Condition Report, needed to meet the information requirements of Article 22(2) of the IED.
PO8	Any part of the installation	The Operator shall submit the written protocol referenced in condition 3.2.4 for the monitoring of soil and groundwater for approval by the Environment Agency. The protocol shall demonstrate how the Operator will meet the requirements of Articles 14(1)(b), 14(1)(e) and 16(2) of the IED. The procedure shall be implemented in accordance with the written approval from the Agency.
PO9	Energy recovery facility (AR1)	At least three months before operation, the Operator shall submit a written report to the Environment Agency specifying arrangements for continuous and periodic monitoring of emissions to air to comply with Environment Agency guidance notes M1 and M2. The report shall include the following: <ul style="list-style-type: none"> • Plant and equipment details, including accreditation to MCERTS • Methods and standards for sampling and analysis Details of monitoring locations, access and working platforms
PO10A	Resource recovery facility (AR6, AR7, AR8)	The operator shall submit a written report to the Environment Agency demonstrating how the site meets the relevant criteria set out within the Environment Agency's Fire Prevention Plan guidance. The report shall be submitted to the Environment Agency for approval.
PO10B	Energy recovery facility (AR1)	The operator shall submit a written report to the Environment Agency demonstrating how the site meets the relevant criteria set out within the Environment Agency's Fire Prevention Plan guidance. The report shall be submitted to the Environment Agency for approval.
PO11	Energy recovery facility (AR1)	At least 6 months prior to construction of the Energy Recovery Facility the operator shall submit a report to the Environment Agency providing detailed designs for the proposed flue gas treatment system and obtain the Environment Agency's written approval to it. The report shall include but is not limited to the following considerations: <ol style="list-style-type: none"> 1) that the final design will meet the requirements of BAT; 2) that the application still accurately reflects the final operating proposals; and

Table S1.4 Pre-operational measures		
Reference	Operation	Pre-operational measures
		<p>3) that the environmental impact assessment still accurately reflects the predicted impacts from the proposal.</p> <p>The operator shall submit a written report to the Environment Agency for approval, 6 months prior to construction, detailing the findings of this review.</p>
PO12A	Resource recovery facility (AR6, AR7, AR8)	The operator shall submit an odour management plan (OMP) to the Environment Agency demonstrating how emissions of odour will be either prevented or where this is not practicable, minimised in line with Environment Agency guidance H4. The OMP shall be submitted to the Environment Agency for approval.
PO12B	Energy recovery facility (AR1)	The operator shall submit a written odour management plan (OMP) to the Environment Agency for approval. The OMP should demonstrate how emissions of odour will be either prevented or where this is not practicable, minimise odour in line with Environment Agency guidance H4.
PO13	Waste water treatment plant (AR2)	<p>The operator shall submit a report to the Environment Agency providing detailed designs for the waste water treatment plant.</p> <p>The operator shall undertake a review of the final detailed design prior to installation to ensure that:</p> <ol style="list-style-type: none"> 1) the final design will meet the requirements of BAT; and 2) the predicated emissions from the proposal will not result in an unacceptable deterioration of the receiving waters. This shall be supported by a risk assessment using the Environment Agency's H1 screening tool <p>The operator shall submit a written report to the Environment Agency for approval, 6 months prior to construction, detailing the findings of this review.</p>
PO14	Gully waste management	<p>The operator shall submit a report to the Environment Agency outlining the results of the characterisation of both the liquid and solid fractions of gully waste using samples taken from existing sites and / or published research. The analysis shall include but is not limited to the following parameters:</p> <ul style="list-style-type: none"> • Hydrocarbons, metals, BOD and COD. <p>Based on the characterisation results the operator shall outline how the wastewater treatment plant will be designed to treat the gully waste to a achieve levels of pollutant that will result in no unacceptable environmental impact on the environment in line with the Environment Agency's H1 guidance.</p> <p>The operator shall submit a written report to the Environment Agency for approval, 6 months prior to construction of the gully waste management facility, detailing the findings of this review.</p>

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 input to incineration plant (Activity Reference AR1)	
Maximum quantity	700,000 tonnes total waste input per annum including: 500 tonnes of non-hazardous clinical waste
Waste code	Description
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
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
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 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
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
17 02 03	plastic

Table S2.2 Permitted waste types and quantities for input to incineration plant (Activity Reference AR1)	
Maximum quantity	700,000 tonnes total waste input per annum including: 500 tonnes of non-hazardous clinical waste
Waste code	Description
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
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 ^{Note 1}	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 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 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
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 38	wood other than that mentioned in 20 01 37

Table S2.2 Permitted waste types and quantities for input to incineration plant (Activity Reference AR1)	
Maximum quantity	700,000 tonnes total waste input per annum including: 500 tonnes of non-hazardous clinical waste
Waste code	Description
20 01 39	plastics
20 01 41	wastes from chimney sweeping
20 01 99	other fractions not otherwise specified
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 99	municipal wastes not otherwise specified
Note 1	All non-hazardous clinical waste to be input directly to the waste feed hoppers of the incineration plant.

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 10
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
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
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

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
02 01 10	waste metal
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 04	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
06	Wastes from inorganic chemical processes
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
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 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other sludges and filter cakes
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)

Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	wastes from lead thermal metallurgy
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)

Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code <small>Note 1</small>	Description
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash
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 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 13	welding wastes
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
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 07	glass packaging
16	Wastes not otherwise specified in the list
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 20	glass
16 02	wastes from electrical and electronic equipment
16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)

Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 05	gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
16 06	batteries and accumulators
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
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 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 02	glass
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
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 06	dredging spoil other than those mentioned in 17 05 05

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)

Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
17 05 07*	track ballast containing hazardous substances
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 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
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 01	sharps (except 18 01 03)
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 01	sharps (except 18 02 02)
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
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 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 03	off-specification compost
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 05	glass
19 12 09	minerals (for example sand, stones)

Table S2.3 Permitted waste types and quantities for input to the recycling and fuel preparation facility for onward transfer only (no treatment) (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for S2.3 and S2.4
Waste code ^{Note 1}	Description
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
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 02	glass
20 01 23*	discarded equipment containing chlorofluorocarbons
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 40	metals
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
Table notes	
Note 1	No asbestos waste to be accepted.

Table S2.4 Permitted waste types and quantities for input to the recycling and fuel preparation facility for treatment or onward transfer (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for waste tables S2.3 and S2.4
Waste code ^{Note 1}	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 02	animal-tissue waste
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	animal-tissue waste

Table S2.4 Permitted waste types and quantities for input to the recycling and fuel preparation facility for treatment or onward transfer (Activity Reference AR6)

Maximum quantity	374,000 tonnes total waste input per annum for waste tables S2.3 and S2.4
Waste code^{Note 1}	Description
02 02 03	materials unsuitable for consumption or processing
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 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 02	wastes from spirits distillation
02 07 04	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
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
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
09	Wastes from the photographic industry
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries

Table S2.4 Permitted waste types and quantities for input to the recycling and fuel preparation facility for treatment or onward transfer (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for waste tables S2.3 and S2.4
Waste code^{Note 1}	Description
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	Wastes from thermal processes
10 09	wastes from casting of ferrous pieces
10 09 14	waste binders other than those mentioned in 10 09 13
10 10	wastes from casting of non-ferrous pieces
10 10 14	waste binders other than those mentioned in 10 10 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
16	Wastes not otherwise specified in the list
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 15	antifreeze fluids other than those mentioned in 16 01 14
16 01 19	plastic
16 03	off-specification batches and unused products
16 03 06	organic wastes other than those mentioned in 16 03 05
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

Table S2.4 Permitted waste types and quantities for input to the recycling and fuel preparation facility for treatment or onward transfer (Activity Reference AR6)	
Maximum quantity	374,000 tonnes total waste input per annum for waste tables S2.3 and S2.4
Waste code^{Note 1}	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 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 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
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste
20 03 99	municipal wastes not otherwise specified
Table notes	
Note 1	No asbestos waste to be accepted.

Table S2.5 Permitted waste types and quantities for input to the gully waste management activity (Activity Reference AR7)	
Maximum quantity	4,000 tonnes waste input per annum of gully waste
Waste code^{Note 1}	Description
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 03	other municipal wastes
20 03 03	street-cleaning residues

Table S2.6 Permitted waste types and quantities for input to the reuse and recycling centre (Activity Reference AR8)	
Maximum quantity	8,000 tonnes total waste input per annum
Waste code	Description
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)
13 02	waste engine, gear and lubricating oils
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils
13 02 06*	synthetic engine, gear and lubricating oils
13 02 07*	readily biodegradable engine, gear and lubricating oils
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 07	glass packaging
15 01 09	textile packaging
16	Wastes not otherwise specified in the list
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 07*	oil filters
16 01 14*	antifreeze fluids containing hazardous substances
16 01 15	antifreeze fluids other than those mentioned in 16 01 14
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	Plastic
16 01 20	glass
16 05	gases in pressure containers and discarded chemicals

Table S2.6 Permitted waste types and quantities for input to the reuse and recycling centre (Activity Reference AR8)

Maximum quantity	8,000 tonnes total waste input per annum
Waste code	Description
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
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 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	Wood
17 02 02	glass
17 02 03	Plastic
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 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 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
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 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 13*	solvents
20 01 14*	acids
20 01 15*	alkalines
20 01 17*	photochemicals
20 01 19*	pesticides
20 01 21*	fluorescent tubes and other mercury-containing waste
20 01 23*	discarded equipment containing chlorofluorocarbons

Table S2.6 Permitted waste types and quantities for input to the reuse and recycling centre (Activity Reference AR8)

Maximum quantity	8,000 tonnes total waste input per annum
Waste code	Description
20 01 25	edible oil and fat
20 01 26*	oil and fat other than those mentioned in 20 01 25
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 33	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 07	bulky waste
Table notes	
Note 1	No asbestos waste to be accepted.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air from incineration plant – 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 and A2 as shown in the site plan in schedule 7	Particulate matter	Incineration exhaust gases	30 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Particulate matter	Incineration exhaust gases	10 mg/m ³	Daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Total Organic Carbon (TOC)	Incineration exhaust gases	20 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Total Organic Carbon (TOC)	Incineration exhaust gases	10 mg/m ³	Daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Hydrogen chloride	Incineration exhaust gases	60 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan	Hydrogen chloride	Incineration exhaust gases	10 mg/m ³	Daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3

Table S3.1 Point source emissions to air from incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard(s) or method(s)
in schedule 7						
A1 and A2 as shown in the site plan in schedule 7	Hydrogen fluoride	Incineration exhaust gases	4 mg/m ³ or 2 mg/m ³	½-hr average or Periodic over minimum 1-hour period	Continuous measurement or Quarterly in first year. Then annual	BS EN 14181 and BS EN 15267-3 or BS ISO 15713
A1 and A2 as shown in the site plan in schedule 7	Carbon monoxide	Incineration exhaust gases	100 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Carbon monoxide	Incineration exhaust gases	50 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Sulphur dioxide	Incineration exhaust gases	200 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Sulphur dioxide	Incineration exhaust gases	50 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	Incineration exhaust gases	160 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3

Table S3.1 Point source emissions to air from incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard(s) or method(s)
in schedule 7						
A1 and A2 as shown in the site plan in schedule 7	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	Incineration exhaust gases	80 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A1 and A2 as shown in the site plan in schedule 7	Cadmium & thallium and their compounds (total)	Incineration exhaust gases	0.05 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 14385
A1 and A2 as shown in the site plan in schedule 7	Mercury and its compounds	Incineration exhaust gases	0.05 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 13211
A1 and A2 as shown in the site plan in schedule 7	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	Incineration exhaust gases	0.5 mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 14385
A1 and A2 as shown in the site plan in schedule 7	Ammonia (NH ₃)	Incineration exhaust gases	No limit set	Periodic over minimum 1-hour period	Quarterly in the first year of operation, then bi-annual	Procedural requirements of BS EN 14791
A1 and A2 as shown in the site plan in schedule 7	Nitrous oxide (N ₂ O)	Incineration exhaust gases	No limit set	Periodic over minimum 1-hour period	Quarterly in the first year of operation, then bi-annual	BS EN ISO 21258

Table S3.1 Point source emissions to air from incineration plant – 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 and A2 as shown in the site plan in schedule 7	Dioxins / furans (I-TEQ)	Incineration exhaust gases	0.1 ng/m ³	Periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 and A2 as shown in the site plan in schedule 7	Dioxins / furans (WHO-TEQ Humans / Mammals)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 and A2 as shown in the site plan in schedule 7	Dioxins / furans (WHO-TEQ Fish)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 and A2 as shown in the site plan in schedule 7	Dioxins / furans (WHO-TEQ Birds)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 and A2 as shown in the site plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948-4
A1 and A2 as shown in the site plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Fish)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948-4

Table S3.1 Point source emissions to air from incineration plant – 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 and A2 as shown in the site plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Birds)	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 1948-4
A1 and A2 as shown in the site plan in schedule 7	Specific individual polycyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Incineration exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS ISO 11338 Parts 1 and 2.

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 and A2 as shown in the site plan in schedule 7	Particulate matter		150 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A1 and A2 as shown in the site plan in schedule 7	Total Organic Carbon (TOC)		20 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure
A1 and A2 as shown in the site plan in schedule 7	Carbon monoxide		100 mg/m ³	½-hr average	Continuous measurement	BS EN 15267-3 during abatement plant failure

Table S3.2 Point source emissions to air from installation excluding incineration plant – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A3 as shown in the site plan in schedule 7	Combustion gases	Standby engine	No limit set	-	-	-
A4 as shown in the site plan in schedule 7	Combustion gases	Standby engine	No limit set	-	-	-
A5 as shown in the site plan in schedule 7	Odour	Odour control unit – energy recovery facility	No limit set	-	-	-
A6 as shown in the site plan in schedule 7	Odour	Odour control unit – recycling and fuel preparation facility	No limit set	-	-	-

Table S3.3 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 emission to Enfield Ditch via attenuation tanks and interceptors as shown in the site plan at schedule 7	Uncontaminated surface water from roof and roadway	No parameters set	No limit set	-	-	-
W2 emission to Enfield Ditch via attenuation tanks and interceptors as shown in the site plan at schedule 7	Uncontaminated surface water from roof and roadway	No parameters set	No limit set	-	-	-
W3 emission to Salmons Brook via attenuation tanks and interceptors as shown in the site plan at schedule 7	Uncontaminated surface water from roof and roadway	No parameters set	No limit set	-	-	-
W4 emission to Enfield Ditch via attenuation tanks and interceptors as shown in the site plan at schedule 7	Uncontaminated surface water from roof and roadway	No parameters set	No limit set	-	-	-

Table S3.4 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 emission to Chingford Sewer and then to Deephams WWTW as shown in the site plan at schedule 7	Wastewater treatment plant output consisting primarily of boiler blow down, clean down and gully waste water	Parameters may be agreed in accordance with pre-operational condition PO14	Limits may be agreed in accordance with pre-operational condition PO14	May be agreed in accordance with pre-operational condition PO14	May be agreed in accordance with pre-operational condition PO14	May be agreed in accordance with pre-operational condition PO14
S2 emission to Chingford Sewer and then to Deephams WWTW as shown in the site plan at schedule 7	Domestic effluent from staff amenity blocks	No parameters set	No limit set	-	-	-

Table S3.5 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Location close to the Combustion Chamber inner wall or as identified and justified in Application	Temperature (° C)	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 and A2 as shown in the site plan in schedule 7	Exhaust gas temperature	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 and A2 as shown in the site plan in schedule 7	Exhaust gas pressure	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 and A2 as shown in the site plan in schedule 7	Exhaust gas oxygen content	Continuous	BS EN 15267-3 BS EN 14181	

Table S3.5 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
A1 and A2 as shown in the site plan in schedule 7	Exhaust gas water vapour content	Continuous	BS EN 15267-3 BS EN 14181	Unless gas is dried before analysis of emissions.
Water abstraction from Deephams channel	Water abstraction	Continuous	As agreed with the Environment Agency	

Table S3.6 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	<3%	Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
Bottom Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
APC Residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	
APC Residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic,		Before use of a new disposal or recycling route	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis'	

Table S3.6 Residue quality					
Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method *	Other specifications
	Cobalt, Vanadium, Zinc) soluble fractions				

* 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 3.5.1	A1, A2	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
Emissions to water Parameters as required by condition 3.5.1	S1	As agreed in accordance with pre-operational condition PO13	As agreed in accordance with pre-operational condition PO13
TOC Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	Bottom Ash	Before use of a new disposal or recycling route	
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	APC Residues	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	APC Residues	Before use of a new disposal or recycling route	
Functioning and monitoring of the incineration plant as required by condition 4.2.2		Annually	1 Jan

Table S4.2 Annual production/treatment	
Parameter	Units
Total municipal waste incinerated	tonnes
Total commercial waste incinerated	tonnes
Electrical energy produced	KWhrs
Thermal energy produced e.g. steam for export	KWhrs
Electrical energy exported	KWhrs
Electrical energy used on installation	KWhrs
Waste heat utilised by the installation	KWhrs
Total waste received at Resource Recovery Centre	tonnes
Total waste received at Recycling and Fuel Preparation Facility	tonnes
Total waste received at gully waste management facility	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Electrical energy exported, imported and used at the installation	Quarterly	KWhrs / tonne of waste incinerated
Fuel oil consumption	Quarterly	Kgs / tonne of waste incinerated
Mass of Bottom Ash produced	Quarterly	Kgs / tonne of waste incinerated
Mass of APC residues produced	Quarterly	Kgs / tonne of waste incinerated
Mass of Other solid residues produced	Quarterly	Kgs / tonne of waste incinerated
Urea consumption	Quarterly	Kgs / tonne of waste incinerated
Activated Carbon consumption	Quarterly	Kgs / tonne of waste incinerated
Lime consumption	Quarterly	Kgs / tonne of waste incinerated
Water consumption	Quarterly	Kgs / tonne of waste incinerated
Periods of abnormal operation	Quarterly	Number of occasions and cumulative hours for current calendar year for each line
Total waste transferred from Recycling and Fuel Preparation Facility for recovery	Quarterly	Kgs / tonne of waste accepted

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Forms air 1 - air 7 or other forms as agreed in writing by the Environment Agency	16/06/17
Water and raw material usage	Form water usage 1 / raw material usage 1 or other form as agreed in writing by the Environment Agency	16/06/17
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	16/06/17
Waste disposal/recovery	Form R1 or other form as agreed in writing by the Environment Agency	16/06/17
Residue quality	Forms residues 1 and residues 2 or other forms as agreed in writing by the Environment Agency	16/06/17
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	16/06/17

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 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 abatement plant or the measurement devices, during which the emissions into the air and the discharges of waste water may exceed the prescribed emission limit values

“accident” means an accident that may result in pollution.

“APC residues” means air pollution control residues

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“bottom ash” means ash falling through the grate

“CEM” Continuous emission monitor

“CEN” means Comité Européen de Normalisation “bi-annual” means twice per year with at least five months between tests;

“daily average” for releases of substances to air means the average of valid half-hourly averages over [a calendar day during normal operation.

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

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

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

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

‘hazardous property’ has the meaning in Annex III of the Waste Framework Directive

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

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

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

“ISO” means International Standards Organisation.

‘List of Wastes’ means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time

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

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

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

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

Pests” means birds, vermin and insects.

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

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

“shut down” is any period where the plant is being returned to a non-operational state.

“start up” is any period, where the plant has been non-operational until waste has been fed to the plant in sufficient quantity to cover the grate and to initiate steady-state conditions.

“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

TEF schemes for dioxin-like PCBs			
Congener	WHO-TEF		
	2005	1997/8	
	Humans / mammals	Fish	Birds
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

