

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Veolia ES Staffordshire Limited

Staffordshire Energy Recovery Facility
The Dell
Enterprise Park
Four Ashes
Wolverhampton
Staffordshire
WV10 7DF

Variation application number

EPR/HP3431HK/V003

Permit number

EPR/HP3431HK

Staffordshire Energy Recovery Facility

Permit number EPR/HP3431HK

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (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.

Brief description of the changes introduced by this variation notice:

This variation is to increase the annual throughput of waste from 300,000 tonnes per annum (tpa) to 340,000 tpa. This increase is based on the plants realistic availability of 8,500 hours per year instead of the 7,500 hours which was assumed in the original application. The capacity of each line remains the same at 20 tonnes per hour.

The main features of this permit are as follows:

The Installation consists of two incineration lines, each with a capacity of 20 tonnes per hour. The Installation accepts mainly Municipal Solid Waste (MSW) and also some similar wastes from street cleaning, markets, commercial, bulky and non-recyclable wood.

Waste is delivered in covered vehicles or containers to a tipping hall, where it is tipped into the waste bunker. A shredder is available for shredding of any bulky items. The waste is mixed with a crane to prevent anaerobic conditions and hence odour.

Waste is loaded into the incinerator, using the crane, via the feed hopper. The waste feeds on the moving grate where it is burned. It is a reverse acting MARTIN grate, which is a proprietary system. Primary and secondary air supply is controlled to ensure good combustion conditions. A temperature of 850°C for at least two seconds is achieved.

Good combustion minimises the amount of bottom ash to achieve <3% of total organic carbon (TOC) in the ash. The ash is quenched in water and ferrous metals magnetically removed. Ash is then transported by conveyor to an indoor storage area. The ash is treated off-site for recovery.

Combustion air is treated to reduce the level of pollutants emitted. Selective non catalytic reduction (SNCR), using ammonia injection, is used for oxides of nitrogen. Bag filters for particulate matter, dry lime injection for acid gases and activated carbon injection for metals and dioxins. After the clean-up, the gases are emitted to air through two 80m high stacks. The stacks are equipped with a Continuous Emissions Monitoring System (CEMS). The CEMS continuously monitor particulate matter, oxides of nitrogen (NO_x), sulphur dioxide (SO₂), carbon monoxide (CO), total organic carbon (TOC) in the form of volatile organic compounds (VOCs), hydrogen chloride (HCl) and ammonia (NH₃) in the combustion gases in order to ensure that the permit emission limits are complied with.

The bag filters collect residues from the air pollution control system (APC). These are transferred to a silo and then to a tanker for removal from site. Sealed bags are sometimes used instead of the tanker. APC residues go for off-site disposal or they are sent for use in waste neutralisation.

Steam is generated in a boiler. The steam is used to drive a turbine which generates up to 26MW of electricity. Approximately 3MW is required for internal use, with 23MW exported to the grid. The Installation is designed so that it can also supply heat, if a client for the heat comes available.

Process water and rainwater run-off from potentially contaminated areas are collected in a waste water pit and re-used in the process. During normal operations there are no emissions to sewer. During operation outside normal parameters, water from the waste water pit could be emitted to sewer after solids separation and pH adjustment. Boiler maintenance or shut-down could create large waste water flows and mean the need for discharge to sewer.

Clean rainwater run-off from the roadways, parking areas and hardstandings are passed through an oil separator and discharged through the Sustainable Urban Drainage (SUD) system to one of two attenuation ponds and then to Saredon Brook. There are no process emissions to water.

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/HP3431HK/A001	Duly made 21/07/11	
Response to Schedule 5 Notice dated 06/11/11	24/11/11	Various questions
Information request dated 01/08/11	Response received 30/08/11	Modelling Files
Information requests dated 12/10/11, 02/11/11 and 15/11/11	Received 29/11/11	Information on noise assessment
Information request dated 01/11/11	Received 19/12/11	Clarify modelling data
Information request dated 13/12/11	Received 19/12/11	Clarify noise information
Permit determined	22/03/12	
Variation determined EPR/HP3431HK/V002	05/09/13	Environment Agency initiated variation to implement the changes introduced by the Industrial Emissions Directive (IED)
Application EPR/HP3431HK/V003	Duly made 11/12/14	To increase throughput of waste from 300,000tpa to 340,000tpa (Consolidation)
Variation determined EPR/HP3431HK/V003	23/12/14	

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/HP3431HK

Issued to

Veolia ES Staffordshire Limited (“the operator”)

whose registered office is

**210 Pentonville Road
London
N1 9JY**

company registration number **7258863**

to operate a regulated facility at

**Staffordshire Energy Recovery Facility
The Dell
Enterprise Park
Four Ashes
Wolverhampton
Staffordshire
WV10 7DF**

to the extent set out in the schedules.

The notice shall take effect from 23/12/2014

Name	Date
Anne Nightingale	23/12/2014

Authorised on behalf of the Environment Agency

Schedule 1

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

Conditions

Condition 2.5.1 deleted, all pre-operational conditions have been completed.

Conditions 2.3.6, 2.3.8, 2.3.9, 2.3.10, 2.3.11, 3.1.1 and schedule 6 are amended to remove reference to the Waste Incineration Directive (WID) following implementation of the Industrial Emissions Directive (IED).

Condition 3.1.4 is added to the permit to implement the requirements of the Industrial Emissions Directive (IED).

Condition 4.2.2 is amended to remove reference to the Waste Incineration Directive (WID) following implementation of the Industrial Emissions Directive (IED).

Conditions 4.3.1 and 4.3.2 are amended in accordance with the requirements of the Industrial Emissions Directive (IED).

Condition 4.4.2 is amended in accordance with the requirements of the Industrial Emissions Directive (IED).

Tables

Deleted Table S1.4, all pre-operational conditions have been completed.

Amended Tables S1.1, S1.2, S1.3, S2.2 and S3.1(a)

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/HP3431HK

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/HP3431HK/V003 authorising,

Veolia ES Staffordshire Limited (“the operator”),

whose registered office is

**210 Pentonville Road
London
N1 9JY**

company registration number **7258863**

to operate an installation at

**Staffordshire Energy Recovery Facility
The Dell
Enterprise Park
Four Ashes
Wolverhampton
Staffordshire
WV10 7DF**

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

Name	Date
Anne Nightingale	23/12/2014

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy recovery and efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.
- 1.2.2 The operator shall provide and maintain steam and/or hot water pass-outs such that opportunities for the further use of waste heat may be capitalised upon should they become practicable.
- 1.2.3 The operator shall review the practicability of Combined Heat and Power (CHP) implementation at least every 2 years. The results shall be reported to the Agency within 2 months of each review.

1.3 Efficient use of raw materials

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 or the Waste Framework Directive; and
 - (c) where waste disposal is necessary, this is undertaken in a manner which minimised its impact on the environment.

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

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 Waste authorised by this permit in condition 2.3.3 shall be clearly distinguished from any other waste on the site.

2.2 The site

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

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2 ; and
- (b) it conforms to the description in the documentation supplied by the producer or holder; and
- (c) if having been separately collected for recycling, it is contaminated and otherwise destined for landfill.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.6 Waste shall not be charged, or shall cease to be charged, if:
- (a) the combustion chamber temperature is below, or falls below, 850°C; or
- (b) any continuous emission limit value in schedule 3 table S3.1(a) is exceeded; or
- (c) any continuous emission limit value in schedule 3 table S3.1 is exceeded, other than under abnormal operating conditions ; or
- (d) monitoring results required to demonstrate compliance with any continuous emission limit value in schedule 3 table S3.1 are unavailable other than under abnormal operating conditions.

- 2.3.7 The operator shall have at least one auxiliary burner in each line at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.6, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.6 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.8 The operator shall record the beginning and end of each period of “abnormal operation”.
- 2.3.9 During a period of “abnormal operation”, the operator shall restore normal operation of the failed equipment or replace the failed equipment as rapidly as possible.
- 2.3.10 Where, during “abnormal operation”, any of the following situations arise, the operator shall, as soon as is practicable, cease the burning of waste 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 exceeds 60 hours on an incineration line;
 - (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;
- 2.3.11 The operator shall interpret the end of the period of “abnormal operation” as the earliest of the following:
- (a) when the failed equipment is repaired and brought back into normal operation;
 - (b) when the operator initiates a shut down of the waste 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 for a given incineration line.
- 2.3.12 Bottom ash and APC residues shall not be mixed.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3 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 and S3.3.
- 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 S 3.5. Additional samples shall be taken and tested and appropriate action taken, whenever:
- (a) disposal or recovery routes change; or
 - (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 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;
 - (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.

3.3 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.1(a), S3.2 and S3.3;
 - (b) process monitoring specified in table S3.4;
 - (c) residue quality in table S3.5.
- 3.3.2 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.

- 3.3.3 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.
- 3.3.4 The provisions for monitoring shall meet the requirements of BS EN 15259. 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.
- 3.3.5 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:

• 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 3.3.5 (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.

3.4 Odour

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

3.5 Noise and vibration

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

4.1 Records

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

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
 - (d) the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Article 12(2) of the Waste Incineration Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the IED.

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

4.3 Notifications

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

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

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

Where the operator is a registered company:

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

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

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

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 listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
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	From receipt of waste to emission of exhaust gas and disposal of waste arising. The incineration of non-hazardous waste on two incineration lines each with a capacity of 20 tonnes per hour and a total annual throughput of 340,000 tonnes per annum. Waste types and quantities as specified in Table S2.2 of this permit.
Directly Associated Activity		
Electricity Generation and/or supply of heat	Generation of electrical power using a steam turbine from energy recovered from the flue gases.	Supply of electricity to national grid and for use within the installation
Back up electrical generator	For providing emergency electrical power to the plant in the event of supply interruption.	-

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Response to question 3 of application form B3; Sections 4, 6.7, 8.2.2, 8.3.2 and 13.5 of volume 2.	21/07/11
Response to Schedule 5 Notice dated 06/11/11	Response to questions 3, 5, 7, 8, 10 and 11	24/11/11
Variation Application (EPR/HP3431HK/V003)	The response to question 3 Operating techniques, given in Part C3 of the variation application form. Includes Table 3a – Technical Standards Non-Technical Summary	11/12/14

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall submit a written report to the Environment Agency on the implementation of its Environmental Management System and the progress made in the accreditation of the system by an external body or if appropriate submit a schedule by which the EMS will be subject to accreditation.	Complete
IC2	The Operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1, identifying the fractions within the PM ₁₀ , PM _{2.5} and PM _{1.0} ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>such tests and produce a report on the results.</p> <p>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.</p>	
IC3	The Operator shall submit a written report to the Environment Agency on the commissioning of the installation. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Complete
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.	Complete
IC5	<p>The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NO_x) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO_x and N₂O emissions that can be achieved under optimum operating conditions.</p> <p>The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins.</p>	Complete
IC6	<p>The Operator shall carry out an assessment of the impact of emissions to air of As and Cr(VI). A report on the assessment shall be made to the Environment Agency.</p> <p>Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant EQS/EAL. In the event that the assessment shows that an EQS/EAL can be exceeded, the report shall include proposals for further investigative work.</p>	15 months from commencement of operations
IC7	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.	Complete
IC8	The Operator shall bring forward the first review required by condition 1.4.2, by two years.	24 months from commencement of operations

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 incineration plant	
Maximum quantity	340,000 tonnes per year
Waste code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03	off-specification batches and unused products
16 03 06	organicwastes other than those mentioned in 16 03 05
18	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 99	other fractions not otherwise specified (hygiene waste collected from domestic facilities that is not classified as clinical waste)
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

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as shown in Fig. 2.3 in the Application	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Particulate matter	Incineration exhaust gases	30 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Particulate matter		10 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Total Organic Carbon (TOC)		20 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Total Organic Carbon (TOC)		10 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Hydrogen chloride (HCl)		60 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Hydrogen chloride (HCl)		10 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Hydrogen fluoride (HF)		2 mg/m ³	periodic over minimum 1-hour period	Quarterly in first year, then bi-annual	BS ISO 15713
A2						
A1	Carbon monoxide (CO)	100 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3	
A2						
A1	Carbon monoxide (CO)	50 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3	
A2						

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as shown in Fig. 2.3 in the Application	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Sulphur dioxide (SO ₂)	Incineration exhaust gases	200 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Sulphur dioxide (SO ₂)		50 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)		400 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)		200 mg/m ³	daily average	Continuous measurement	BS EN 14181 and BS EN 15267-3
A2						
A1	Cadmium (Cd) & thallium (Tl) and their compounds (total)		0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 14385
A2						
A1	Mercury and its compounds	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 13211	
A2						
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN 14385	
A2						
A1	Dioxins / furans (I-TEQ)	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	
A2						

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as shown in Fig. 2.3 in the Application	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Ammonia	Incineration exhaust gases	No limit set	½-hr average and daily average	Continuous	BS EN 14181 and BS EN 15267-3
A2						
A1	Nitrous oxide (N ₂ O)		No limit set	Periodic over minimum 1-hour period	Quarterly in the first year of operation, then bi-annual	BS EN ISO 21258
A2						
A1	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)		No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948-4
A2						
A1	Dioxin-like PCBs (WHO-TEQ Fish)		No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948-4
A2						
A1	Dioxin-like PCBs (WHO-TEQ Birds)	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948-4	
A2						

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as shown in Fig. 2.3 in the Application	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Specific individual poly-cyclic 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	Procedure shall use BS ISO 11338 Parts 1 and 2
A2						
A1	Dioxins / furans (WHO-TEQ Humans / Mammals)		No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948 Parts 1, 2 and 3
A2						
A1	Dioxins / furans (WHO-TEQ Fish)		No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948 Parts 1, 2 and 3
A2						
A1	Dioxins / furans (WHO-TEQ Birds)		No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year, then bi-annual	BS EN/TS 1948 Parts 1, 2 and 3
A2						
A3 to A9 and A16	No parameters set		Tank and silo vents	No limits set	-	-
A10 to A13	No parameters set	Boiler relief valves	No limits set	-	-	-
A14 and A15	No parameters set	Reserve/standby diesel generators	No limits set	-	-	-

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements

Emission point ref. & location as shown in Fig. 2.3 in the Application	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Particulate matter		150 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3 during abatement plant failure
A2						
A1	Total Organic Carbon (TOC)		20 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3] during abatement plant failure
A2						
A1	Carbon monoxide (CO)		100 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 and BS EN 15267-3 during abatement plant failure
A2						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W3 Emission to Saredon brook, as shown in Fig. 2.3 in the Application	No parameters set	Uncontaminated surface water	No limits set	-	-	-
W4 Emission to Saredon brook, as shown in Fig. 2.3 in the Application	No parameters set	Uncontaminated surface water	No limits set	-	-	-

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
W2	No parameters set	Batch discharge of waste water via settlement and pH treatment equipment	No limits set	-	-	-

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
As agreed in writing with the Environment Agency	Wind speed and direction	continuous	Anemometer	-
Location close to the combustion chamber inner wall	Temperature (°C)	continuous	Traceable to National Standards	As agreed in writing with the Environment Agency
A1	Exhaust gas temperature	continuous	Traceable to National Standards	As agreed in writing with the Environment Agency
A2				
A1	Exhaust gas pressure	continuous	Traceable to National Standards	As agreed in writing with the Environment Agency
A2				
A1	Exhaust gas oxygen content	continuous	BS EN 14181 and BS EN 15267-3	-
A2				
A1	Water vapour content	continuous	BS EN 14181 and BS EN 15267-3	Unless gas is dried before analysis of emissions
A2				

Table S3.5 Residue quality					
Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method *	Other specifications
Bottom Ash	TOC	<3%	Monthly in the first year of operation then quarterly	Environment Agency ash sampling protocol.	
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.	No limits set	Monthly in the first year of operation then quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	No limits set	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	
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.	No limits set	Monthly in the first year of operation then quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	No limits set	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	

* 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 January, 1 April, 1 July, 1 October
TOC Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 January, 1 April, 1 July, 1 October
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 January, 1 April, 1 July, 1 October
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 January, 1 April, 1 July, 1 October
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 January

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	KWhrs
Electrical energy exported	KWhrs
Electrical energy used on installation	KWhrs
Waste heat utilised by the installation	KWhrs

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

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Forms air 1-7 or other form as agreed in writing by the Environment Agency	01/01/2012
Residues	Forms residues 1 and 2 or other form as agreed in writing by the Environment Agency	01/01/2012
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	01/01/2012
Raw material and water usage	Form WU/RM1 or other form as agreed in writing by the Environment Agency	01/01/2012
Waste disposal and recovery	Form R1 or other form as agreed in writing by the Environment Agency	01/01/2012
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	01/01/2012

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

(c) Notification requirements for the 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 other than continuous emission monitors for releases to air of particulates, TOC and/or CO, during which the concentrations in the discharges into air and the purified waste water of the regulated substances may exceed the normal 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 Environmental Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

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

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

“CEM” Continuous emission monitor.

“CEN” means Comité Européen de Normalisation.

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

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

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

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

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

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

“ISO” means International Standards Organisation.

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

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

“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.

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

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

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

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

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“Waste Incineration Directive” means Directive 2000/76/EC on the incineration of waste (O.J. L 332, 28.12.2000) (superseded by Industrial Emissions Directive, see above).

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

“year” means calendar year ending 31 December.

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

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

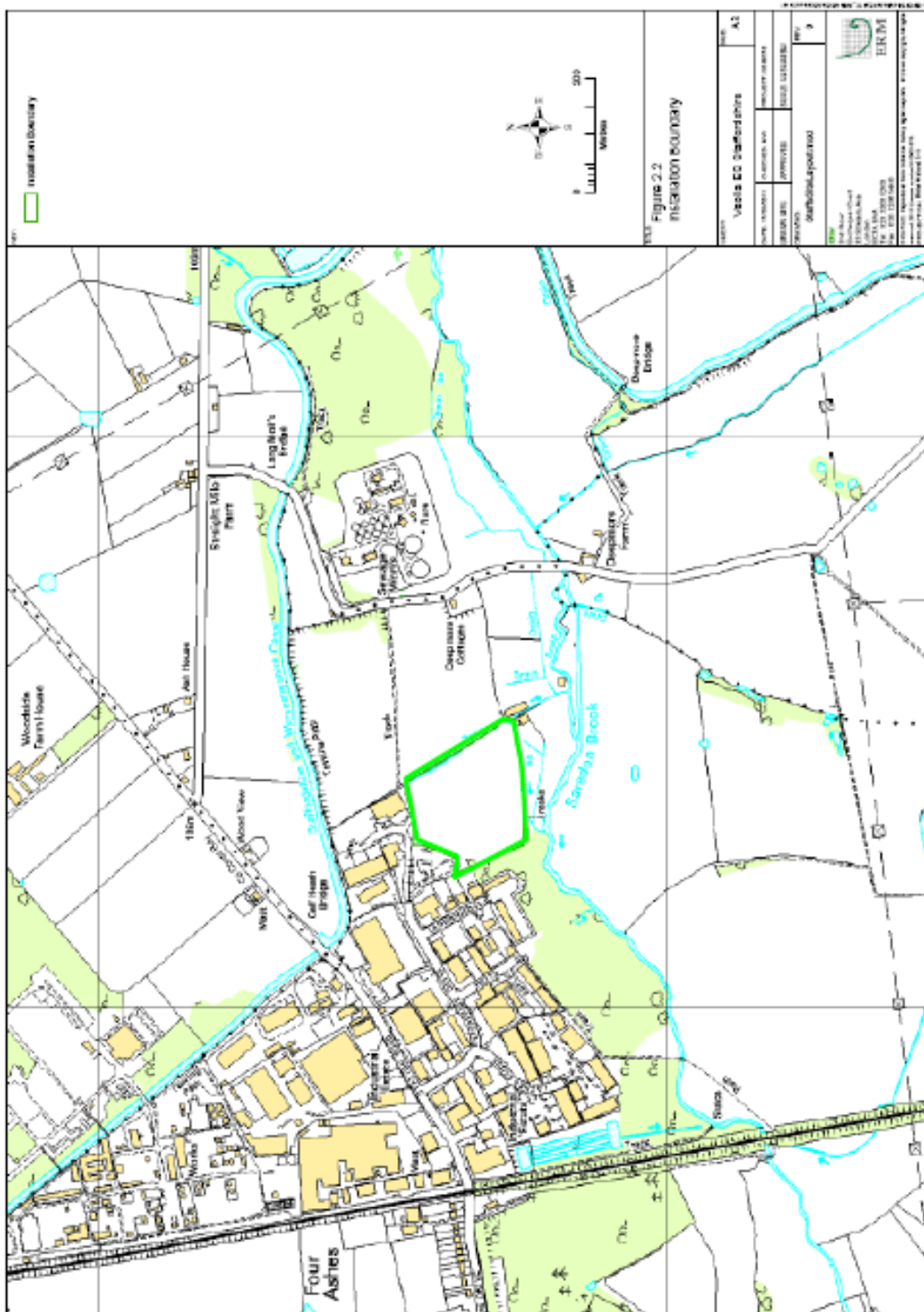
(a) in relation to gases from incineration and plants other than those burning waste oil, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry.

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.

TEF schemes for dioxins and furans				
Congener	I-TEF(1990)	WHO-TEF (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	0.0001	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.05	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.5	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	0.0001	0.0001	0.0001

TEF schemes for dioxin-like PCBs			
Congener	WHO-TEF (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)	0.0001	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)	0.01	0.00005	0.001
Mono-ortho PCBs			
2,3,3',4,4'-PeCB (105)	0.0001	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.0005	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.0001	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.0001	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.0005	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.0005	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00001	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.0001	<0.000005	0.00001

Schedule 7 – Site plan



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