

# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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Tradebe Healthcare National Limited  
Redditch Clinical Waste Treatment Facility  
The Incinerator  
Alexandra Hospital  
Woodrow Drive  
Redditch  
Worcestershire  
B98 7UB

### **Variation application number**

EPR/VP3136ZD/V004

### **Permit number**

EPR/VP3136ZD

# Redditch Clinical Waste Treatment Facility

## Permit number EPR/VP3136ZD

### 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. All the conditions of the permit have been varied and are subject to the right of appeal.

#### **Variation application EPR/JP3235SB/V004**

This variation permits the operation of a waste transfer facility, to allow waste material received at the facility to be transferred to other authorised facilities for recycling or disposal. Some of the material received in wheeled bins will be bulked into containers or skips to allow easier handling at waste treatment or disposal facilities.

The rest of the installation remains the same and is operated as follows:

The installation is a single incinerator designed to have the capacity to burn 1.5 tonnes (maximum) of waste an hour (approximately 10,000 tonnes per year). Clinical waste, including hazardous waste, is brought to a storage area at the incinerator from Alexandra Hospital and other sources such as family practitioners and dental surgeries. The waste arrives in wheeled bins ready for loading directly into the feed hopper of the incinerator. Energy is recovered from the combustion gases by a waste heat boiler; the boiler provides the hospital with steam. The gases are then subjected to cleaning before their discharge through a 30m high stack. Bottom ashes are discharged to a quench pit, transferred to a skip and are subsequently sent to landfill. Air pollution control residues are also sent to landfill. There are no other significant sources of waste generated.

The installation covers the whole of the incineration plant and site: waste reception, waste storage, fuel and air supply facilities, boiler, facilities for controlling incineration operations and the recording and monitoring of incineration conditions.

After the third stage combustion chamber there is an emergency pressure relief vent, which may operate to prevent dangerous conditions within the plant. The relief vent has its own discharge stack.

Empty bins are washed on site and the bin washings are discharged to a three-stage interceptor before discharge to sewer. Also discharged to the interceptor are floor washings, blowdown from the waste heat boiler and ash quench pit water. Sediment from the interceptor is periodically removed and disposed to landfill. The incinerator produces 1,200 tonnes of ash and 500 tonnes of baghouse dust/spent lime per annum. There are no other significant sources of general solid wastes or special wastes generated.

Uncontaminated site surface runoff discharges to a surface water drain is subsequently discharged into a small, un-named ditch to the SW of the site.

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.

| <b>Status log of the permit</b>  |                                    |   |
|--|------------------------------------|---|
| <b>Description</b>   | <b>Date</b>                        | <b>Comments</b>   |
| Application EPR/JP3235SB/A001  | Duly made<br>03/03/05              |   |
| Further Information received   | 05/10/05;<br>31/10/05;<br>18/11/05 |   |
| Permit determined<br>EPR/JP3235SB  | 09/12/05                           |   |
| Application EPR/GP3330FB/T001<br>(full transfer of permit<br>EPR/JP3235SB) | Duly made<br>01/04/11              | Transfer of permit from Polkacrest Midlands Limited to SITA (UK) Limited.   |
| Transfer determined<br>EPR/GP3330FB  | 19/04/11                           | Full transfer of permit complete.   |
| Application EPR/VP3136ZD/T001<br>(full transfer of permit<br>EPR/GP3330FB) | 13/02/13                           | Transfer of permit from SITA (UK) Limited to Polkacrest Limited.  |
| Transfer determined<br>EPR/VP3136ZD  | 19/02/13                           | Full transfer of permit complete.   |
| Variation application<br>EPR/VP3136ZD/V002                                 | Duly made<br>19/03/13              | Variation to amend name of legal entity.  |
| Variation issued<br>EPR/VP3136ZD/V002                                      | 09/04/13                           | Variation issued to SITA Healthcare Limited   |
| Notified of change of company name and registered office address           | 17/12/14                           | Name changed to Tradebe Healthcare National Limited and registered office address to Atlas House, Third Avenue, Globe Park, Marlow, Buckinghamshire, SL7 1EY. |
| Variation issued<br>EPR/VP3136ZD/V003                                      | 06/01/15                           | Varied permit issued to Tradebe Healthcare National Limited   |
| Variation Application<br>EPR/VP3136ZD/V004                                 | 25/10/17                           | Application to add waste transfer activity to the permit.   |
| Further information received   | 14/02/18                           | Revised site plan, location plan, drain plan, waste codes and additional details of operations.   |
| Variation issued<br>EPR/VP3136ZD<br>(Billing ref: PP3035JA)                | 21/06/18                           | Varied and updated permit issued to Tradebe Healthcare National Limited.  |

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/VP3136ZD**

### Issued to

**Tradebe Healthcare National Limited** (“the operator”)

whose registered office is

**Atlas House  
Third Avenue  
Globe Park  
Marlow  
Buckinghamshire  
SL7 1EY**

company registration number **03882534**

to operate a regulated facility at

**Redditch Clinical Waste Treatment Facility  
The Incinerator  
Alexandra Hospital  
Woodrow Drive  
Redditch  
Worcestershire  
B98 7UB**

to the extent set out in the schedules.

The notice shall take effect from 21/06/2018

| <b>Name</b>            | <b>Date</b>       |
|------------------------|-------------------|
| <b>David Griffiths</b> | <b>21/06/2018</b> |

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit 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/VP3136ZD**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3136ZD/V004 authorising,

**Tradebe Healthcare National Limited** (“the operator”),

whose registered office is

**Atlas House  
Third Avenue  
Globe Park  
Marlow  
Buckinghamshire  
SL7 1EY**

company registration number **03882534**

to operate an installation at

**Redditch Clinical Waste Treatment Facility  
The Incinerator  
Alexandra Hospital  
Woodrow Drive  
Redditch  
Worcestershire  
B98 7UB**

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

| <b>Name</b>            | <b>Date</b>       |
|------------------------|-------------------|
| <b>David Griffiths</b> | <b>21/06/2018</b> |

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 The operator shall:
- (a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities.
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.
- 1.2.2 The operator shall provide and maintain steam and/or hot water pass-outs such that opportunities for the further use of waste heat may be capitalised upon should they become practicable.
- 1.2.3 The operator shall review the viability of Combined Heat and Power (CHP) implementation at least every 4 years, or in response to any of the following factors, whichever comes sooner:
- (a) new plans for significant developments within 15 km of the installation;
  - (b) changes to the Local Plan;
  - (c) changes to the 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 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

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

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

## **2 Operations**

### **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the “activities”).
- 2.1.2 Waste authorised by this permit 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.

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2, table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2, table S2.2; and
  - (b) it conforms to the description in the documentation supplied by the producer or holder; and



- (c) it having been separately collected for recycling, it is subsequently unsuitable for recovery by recycling.
- 2.3.5 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.
- 2.3.6 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.
- 2.3.7 The Operator shall incinerate only those hazardous wastes where the throughputs, calorific values and pollutant composition are within the ranges specified in the Application.
- 2.3.8 The operator shall ensure that prior to accepting waste subject to condition 2.3.7 at the site, it has obtained sufficient information about the hazardous wastes to be burned to demonstrate compliance with the characteristics described in condition 2.3.7.
- 2.3.9 The operator shall take representative samples of all hazardous waste deliveries to the site unless otherwise agreed in writing with the Environment Agency and test a representative selection of these samples to verify conformity with the information obtained as required by condition 2.3.8. These samples shall be retained for inspection by the Environment Agency for a period of at least 1 month after the material is incinerated and results of any analysis made of such samples will be retained for at least 2 years after the material is incinerated.
- 2.3.10 Waste shall not be charged, or shall cease to be charged, if:
- (a) the combustion chamber temperature is below, or falls below, 850°C for non-hazardous waste or hazardous waste where the content of halogenated organic substances (as chlorine) does not exceed 1%, 1100°C for hazardous waste where the content of halogenated organic substances exceeds 1% (as chlorine) or 1000°C where cytotoxic or cytostatic drugs are burned; 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; or
  - (e) there is a stoppage, disturbance or failure of the activated carbon abatement system, other than under abnormal operating conditions; or
  - (f) the Emergency Relief Vent is open.
- 2.3.11 The operator shall have at least one auxiliary burner in each line which shall be operated at start up, shut down and as required during operation to ensure that the operating temperature specified in condition 2.3.7 is maintained as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.7 is maintained in the combustion chamber, such burner(s) shall be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.
- 2.3.12 The operator shall record the beginning and end of each period of “abnormal operation”.
- 2.3.13 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.

- 2.3.14 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 stoppages, disturbances or failures of the abatement plant, or continuous emission monitors are out of service, as the case may be, for a total of 4 hours uninterrupted duration;
  - (b) there is a technically unavoidable stoppage, disturbance or failure of the activated carbon abatement system for a total of 4 hours uninterrupted duration;
  - (c) the cumulative duration of “abnormal operation” periods over 1 calendar year has reached 60 hours;
  - (d) continuous measurement shows that an emission exceeds any emission limit value in schedule 3, table S3.1(a).
  - (e) 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.
- 2.3.15 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.
- 2.3.16 Infectious clinical waste must be placed in the furnace without first being mixed with other categories of waste, using techniques which are no less effective than those described in the application.
- 2.3.17 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, table 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 S3.5. Additional samples shall be taken and tested and appropriate action taken, whenever:

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

## **3.2 Emissions 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 approved in writing with the Environment Agency under IC 10.

## **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 and S3.3;
  - (b) process monitoring specified in table S3.4;
  - (c) residue quality in table S3.5.
- 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 <sub>2</sub> expressed as NO <sub>2</sub> ) | 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. 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 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 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 or address; 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

| <b>Table S1.1 activities</b>          |  |  |   |
|---------------------------------------|--|--|---|
| <b>Activity reference</b>             | <b>Activity listed in Schedule 1 of the EP Regulations</b> | <b>Description of specified activity and WFD Annex I and II operations</b>   | <b>Limits of specified activity</b>   |
| <b>A1</b>                             | S5.1 A1 (a)  | The incineration of hazardous waste in a waste incineration plant with a capacity of 10 tonnes per day or more (D10)                       | Incineration of waste types and quantities as specified in table S2.2 of this permit.<br><br>Receipt and storage of hazardous and non-hazardous wastes, waste heat boiler, facilities for the treatment of exhaust gases, stack, devices and systems for controlling and monitoring incineration operations. Handling, storage, recycling and despatch of waste materials arising from operations including washing of waste containers and disposal of bin washing wastewater to foul sewer. |
| <b>Directly Associated Activities</b> |  |  |   |
| <b>A2</b>                             | Bin washing  | On-site washing of empty waste bins.   | Operation of bin washer and discharge or effluent to public sewer.  |
| <b>A3</b>                             | Hazardous and Non-Hazardous Waste Transfer Station         | Temporary storage and repackaging of hazardous and non-hazardous waste prior to its removal from site for disposal or recovery (D15, R13). | From receipt of waste to despatch of recovered and transferred materials and disposal of waste arising.<br><br>Waste types and quantities as specified in table S2.2 of this permit.  |

| <b>Table S1.2 Operating techniques</b>  |   |                      |
|---|---|----------------------|
| <b>Description</b>  | <b>Parts</b>  | <b>Date Received</b> |
| Application   | The response to sections 2.1, 2.2, 2.7 and 2.10 of the Application.   | 03/03/05             |
| Response to request for information by Schedule 4 notice (request dated 26/08/05) | Response to BAT assessment, site plans and procedures, start-up and shut down procedures, emissions concentrations, CEMS calibration, bottom ashes, emergency vent operation. | 05/10/05             |
| Response to email requesting further information dated 18/11/05                   | Response to revised Site Plan, actual air emission monitoring data, ash composition monitoring data, progress of substitution trials.   | 31/10/05             |
| Response to email requesting further information dated 1/11/05                    | Response to maintenance of temperature in combustion chamber (cytotoxic drugs), substitution trials, HCl and dioxins & furans improvement proposals.                          | 18/11/05             |
| Application   | The response to sections C2 2, C2 3d, C2 5, C3 1, C3 2, C3 3 and C3 4 of the Application.   | 25/10/17             |
| Response to email requesting further information dated 21/01/18                   | The response to questions 1 to 8.   | 14/02/18             |



| <b>Table S1.3 Improvement programme requirements</b> |  |             |
|--|--|-------------|
| <b>Reference</b>                                     | <b>Requirement</b>   | <b>Date</b> |
| <b>IC1a)</b>   | The operator shall assess the storage and handling measures in place for the ash waste skip, boiler waste and APC waste with the purposes of achieving appropriate segregation, secondary containment and preventing fugitive releases and/or losses to ground and surface water. The assessment shall take into account the requirements given in sections 2.5 of the Sector Guidance Note S5.01 Issue 1 July 2004.   | Complete    |
| <b>IC1b)</b>   | Following submission of the Plan required by Improvement Condition 1a the procedures shall be incorporated into the site working procedures.   | Complete    |
| <b>IC2</b>   | The Operator shall submit a formal Accident Management Plan. The Plan shall be prepared with due regard to Section 2.8 of Sector Guidance Note S5.01 Issue 1, July 2004. The Plan shall identify all the hazards, assess the risks and identify the techniques necessary to reduce the risks.  | Complete    |
| <b>IC3</b>   | 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 <sub>10</sub> , PM <sub>2.5</sub> and PM <sub>1.0</sub> ranges.<br>The proposal shall include a timetable to carry out such tests and produce a report on the results. On receipt of written agreement by the Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Agency a report on the results.  | Complete.   |
| <b>IC4</b>   | The Operator shall submit a Noise Management Plan in accordance with the requirements given in the Agency's Horizontal Guidance Note IPPC H3 (Part 2)- Noise Assessment and Control and where circumstances are appropriate, BS8233 1999.<br>A written report shall be submitted to the Agency to include a timetable for the implementation and periodic review of this document, including measurement conditions, data analysis and interpretation, conclusions and recommendations   | Complete    |
| <b>IC5</b>   | The Operator shall undertake an assessment of the subsurface structures and their potential to cause fugitive emissions to surface water and ground water. The Operator shall undertake a condition survey of those subsurface structures identified as having a potential to cause fugitive emissions,<br>A report summarising this review shall be submitted to the Agency with details of relevant improvements and proposed timescales for completion of those improvements.   | Complete    |
| <b>IC6</b>   | The Operator shall submit a report outlining proposals for reducing the operation of the emergency vent to no more than once per year as detailed in Sector Guidance Note IPPC S5.01 Issue 1 July 2004, Section 2.1.5. The report shall: <ul style="list-style-type: none"> <li>Investigate alternative operating procedures that do not require the operation of the emergency vent in the event of power dips and failures;</li> <li>Consider the feasibility and economic viability of ducting the emergency vent into the main stack.</li> </ul> A report summarising this review shall be submitted to the Agency with details of relevant improvements and proposed timescales for completion of those improvements. | Complete    |
| <b>IC7</b>   | The operator shall submit and Energy Efficiency Plan, having due regard to Sector Guidance Note S5.01 Issue 1 July 2004, section 2.7, in particular item 5 of Section 2.7.2  | Complete    |
| <b>IC8</b>   | The Operator shall submit a formal Site Closure plan, having due regard to Section 2.11 of Sector Guidance note S5.01 Issue 1 July 2004.   | Complete    |
| <b>IC9</b>   | The Operator shall calibrate and verify the performance of Continuous Emission Monitors for release points and parameters as specified in Table 2.2.2 to BS EN 14181 and submit a summary report to the Environment Agency as evidence of compliance with the requirements of BS EN 14181.   | Complete    |

| <b>Table S1.3 Improvement programme requirements</b> |   |             |
|--|---|-------------|
| <b>Reference</b>                                     | <b>Requirement</b>  | <b>Date</b> |
| <b>IC10</b>  | <p>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.</p> <p>The procedure shall be implemented in accordance with the written approval from the Environment Agency.</p> | 21/09/18    |
| <b>IC11</b>  | <p>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.</p>   | 21/09/18    |

## Schedule 2 – Waste types, raw materials and fuels

| Table S2.1 Raw materials and fuels |               |
|------------------------------------|---------------|
| Raw materials and fuel description | Specification |
| -                                  | -             |

| Table S2.2 Permitted waste types and quantities for activity A1 (incineration plant) and activity A3 (hazardous and non-hazardous waste transfer station) |   |
|---|---|
| Maximum quantity  | Annual throughput shall not exceed 10,000 tonnes for activity A1.<br>Annual throughput shall not exceed 5,200 tonnes for activity A3.   |
| Waste code  | Description   |
| <b>02</b>   | <b>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>   |
| <b>02 01</b>  | <b>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>  |
| 02 01 02  | animal-tissue waste   |
| 02 01 03  | plant-tissue waste  |
| <b>02 02</b>  | <b>wastes from the preparation and processing of meat, fish and other foods of animal origin</b>  |
| 02 02 02  | animal-tissue waste   |
| 02 02 03  | materials unsuitable for consumption or processing  |
| <b>02 03</b>  | <b>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</b> |
| 02 03 04  | materials unsuitable for consumption or processing  |
| <b>02 05</b>  | <b>wastes from the dairy products industry</b>  |
| 02 05 01  | materials unsuitable for consumption or processing  |
| <b>02 06</b>  | <b>wastes from the baking and confectionery industry</b>  |
| 02 06 01  | materials unsuitable for consumption or processing  |
| <b>07</b>   | <b>Wastes from organic chemical processes</b>   |
| <b>07 05</b>  | <b>wastes from the MFSU of pharmaceuticals</b>  |
| 07 05 13*   | solid wastes containing hazardous substances  |
| 07 05 14  | solid wastes other than those mentioned in 07 05 13   |
| <b>15</b>   | <b>Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>   |
| <b>15 01</b>  | <b>packaging (including separately collected municipal packaging waste)</b>   |
| 15 01 01  | paper and cardboard packaging   |
| 15 01 02  | plastic packaging   |
| 15 01 05  | composite packaging   |
| 15 01 06  | mixed packaging   |
| 15 01 09  | textile packaging   |
| 15 01 10*   | packaging containing residues of or contaminated by hazardous substances  |

| <b>Table S2.2 Permitted waste types and quantities for activity A1 (incineration plant) and activity A3 (hazardous and non-hazardous waste transfer station)</b> |   |
|--|---|
| <b>Maximum quantity</b>  | <b>Annual throughput shall not exceed 10,000 tonnes for activity A1.<br/>Annual throughput shall not exceed 5,200 tonnes for activity A3.</b>   |
| <b>Waste code</b>  | <b>Description</b>  |
| <b>15 02</b>   | <b>absorbents, filter materials, wiping cloths and protective clothing</b>  |
| 15 02 02*  | absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances   |
| 15 02 03   | absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02  |
| <b>16</b>  | <b>Wastes not otherwise specified in the list</b>   |
| <b>16 01</b>   | <b>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)</b> |
| 16 01 21*  | hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14 ( <b>Scene of crime/accident material. Confiscated/confidential material</b> )                          |
| <b>16 02</b>   | <b>wastes from electrical and electronic equipment</b>  |
| 16 02 14   | discarded equipment other than those mentioned in 16 02 09 to 16 02 13  |
| <b>16 03</b>   | <b>off-specification batches and unused products</b>  |
| 16 03 03*  | inorganic wastes containing hazardous substances  |
| 16 03 04   | inorganic wastes other than those mentioned in 16 03 03   |
| 16 03 05*  | organic wastes containing hazardous substances  |
| 16 03 06   | organic wastes other than those mentioned in 16 03 05   |
| <b>18</b>  | <b>Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)</b>  |
| <b>18 01</b>   | <b>wastes from natal care, diagnosis, treatment or prevention of disease in humans</b>  |
| 18 01 01   | sharps (except 18 01 03)  |
| 18 01 02   | body parts and organs including blood bags and blood preserves (except 18 01 03)  |
| 18 01 03*  | wastes whose collection and disposal is subject to special requirements in order to prevent infection   |
| 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)                     |
| 18 01 06*  | chemicals consisting of or containing hazardous substances ( <b>excluding X-ray photochemicals</b> )  |
| 18 01 07   | chemicals other than those mentioned in 18 01 06 ( <b>excluding X-ray photochemicals</b> )  |
| 18 01 08*  | cytotoxic and cytostatic medicines  |
| 18 01 09   | medicines other than those mentioned in 18 01 08  |
| <b>18 02</b>   | <b>wastes from research, diagnosis, treatment or prevention of disease involving animals</b>  |
| 18 02 01   | sharps (except 18 02 02)  |
| 18 02 02*  | wastes whose collection and disposal is subject to special requirements in order to prevent infection   |

| <b>Table S2.2 Permitted waste types and quantities for activity A1 (incineration plant) and activity A3 (hazardous and non-hazardous waste transfer station)</b> |   |
|--|---|
| <b>Maximum quantity</b>  | <b>Annual throughput shall not exceed 10,000 tonnes for activity A1.<br/>Annual throughput shall not exceed 5,200 tonnes for activity A3.</b>   |
| <b>Waste code</b>  | <b>Description</b>  |
| 18 02 03   | wastes whose collection and disposal is not subject to special requirements in order to prevent infection   |
| 18 02 05*  | chemicals consisting of or containing hazardous substances <b>(excluding X-ray photochemicals)</b>  |
| 18 02 06   | chemicals other than those mentioned in 18 02 05 <b>(excluding X-ray photochemicals)</b>  |
| 18 02 07*  | cytotoxic and cytostatic medicines  |
| 18 02 08   | medicines other than those mentioned in 18 02 07  |
| <b>19</b>  | <b>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</b>  |
| <b>19 02</b>   | <b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>   |
| 19 02 03   | premixed wastes composed only of non-hazardous wastes   |
| 19 02 04*  | premixed wastes composed of at least one hazardous waste  |
| 19 02 09*  | solid combustible wastes containing hazardous substances  |
| 19 02 10   | combustible wastes other than those mentioned in 19 02 08 and 19 02 09  |
| <b>20</b>  | <b>Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>  |
| <b>20 01</b>   | <b>separately collected fractions (except 15 01)</b>  |
| 20 01 01   | paper and cardboard <b>(Confiscated/confidential material)</b>  |
| 20 01 10   | clothes   |
| 20 01 31*  | cytotoxic and cytostatic medicines  |
| 20 01 32   | Medicines other than those mentioned in 20 01 31  |
| 20 01 99   | other fractions not otherwise specified <b>(comprising of separately collected fractions of municipal clinical waste (not arising from healthcare and/or related research i.e. not including waste from natal care, diagnosis, treatment or prevention of disease) which is subject to special requirements in order to prevent infection).</b><br><br>other fractions not otherwise specified <b>(comprising only of non-clinical human and animal offensive/hygiene waste (not arising from healthcare and/or related research i.e. not including waste from natal care, diagnosis, treatment or prevention of disease) which is not subject to special requirements in order to prevent infection)<sup>1</sup></b> |
| <b>20 02</b>   | <b>garden and park wastes (including cemetery waste)</b>  |
| 20 02 01   | biodegradable waste   |
| <sup>1</sup> These entries are limited to those wastes that are not described, packaged, labelled or transported as infectious or clinical wastes.               |   |

## Schedule 3 – Emissions and monitoring

| <b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b> |   |                            |                               |                                     |                             |  |
|---|---|----------------------------|-------------------------------|-------------------------------------|-----------------------------|--|
| <b>Emission point ref. &amp; location</b>   | <b>Parameter</b>  | <b>Source</b>              | <b>Limit (including unit)</b> | <b>Reference period</b>             | <b>Monitoring frequency</b> | <b>Monitoring standard(s) or method(s)</b> |
| A1  | Particulate matter  | Incineration exhaust gases | 30 mg/m <sup>3</sup>          | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Particulate matter  | Incineration exhaust gases | 10 mg/m <sup>3</sup>          | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Total Organic Carbon (TOC)  | Incineration exhaust gases | 20 mg/m <sup>3</sup>          | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Total Organic Carbon (TOC)  | Incineration exhaust gases | 10 mg/m <sup>3</sup>          | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Hydrogen chloride   | Incineration exhaust gases | 60 mg/m <sup>3</sup>          | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Hydrogen chloride   | Incineration exhaust gases | 10 mg/m <sup>3</sup>          | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Hydrogen fluoride   | Incineration exhaust gases | 2 mg/m <sup>3</sup>           | periodic over minimum 1-hour period | Bi-annual                   | BS ISO 15713                               |
| A1  | Carbon monoxide   |                            | 100 mg/m <sup>3</sup>         | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Carbon monoxide   | Incineration exhaust gases | 50 mg/m <sup>3</sup>          | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Sulphur dioxide   | Incineration exhaust gases | 200 mg/m <sup>3</sup>         | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Sulphur dioxide   | Incineration exhaust gases | 50 mg/m <sup>3</sup>          | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> ) | Incineration exhaust gases | 400 mg/m <sup>3</sup>         | ½-hr average                        | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |
| A1  | Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> ) | Incineration exhaust gases | 400 mg/m <sup>3</sup>         | daily average                       | Continuous measurement      | BS EN 14181 and BS EN 15267-3              |

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

| <b>Emission point ref. &amp; location</b> | <b>Parameter</b>   | <b>Source</b>              | <b>Limit (including unit)</b> | <b>Reference period</b>                                | <b>Monitoring frequency</b> | <b>Monitoring standard(s) or method(s)</b> |
|---|--|----------------------------|-------------------------------|--|-----------------------------|--|
| A1  | Cadmium & thallium and their compounds (total)                   | Incineration exhaust gases | 0.05 mg/m <sup>3</sup>        | periodic over minimum 30 minute, maximum 8 hour period | Bi-annual                   | BS EN 14385                                |
| A1  | Mercury and its compounds  | Incineration exhaust gases | 0.05 mg/m <sup>3</sup>        | periodic over minimum 30 minute, maximum 8 hour period | Bi-annual                   | BS EN 13211                                |
| A1  | Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) | Incineration exhaust gases | 0.5 mg/m <sup>3</sup>         | periodic over minimum 30 minute, maximum 8 hour period | Bi-annual                   | BS EN 14385                                |
| A1  | Dioxins / furans (I-TEQ)   | Incineration exhaust gases | 0.1 ng/m <sup>3</sup>         | periodic over minimum 6 hours, maximum 8 hour period   | Bi-annual                   | BS EN 1948 Parts 1, 2 and 3                |
| A1  | Dioxins / furans (WHO-TEQ Humans / Mammals)                      | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period   | Bi-annual                   | BS EN 1948 Parts 1, 2 and 3                |
| A1  | Dioxins / furans (WHO-TEQ Fish)                                  | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period   | Bi-annual                   | BS EN 1948 Parts 1, 2 and 3                |
| A1  | Dioxins / furans (WHO-TEQ Birds)                                 | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period   | Bi-annual                   | BS EN 1948 Parts 1, 2 and 3                |

| <b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b> |  |                            |                               |  |                             |  |
|---|--|----------------------------|-------------------------------|--|-----------------------------|--|
| <b>Emission point ref. &amp; location</b>   | <b>Parameter</b>   | <b>Source</b>              | <b>Limit (including unit)</b> | <b>Reference period</b>                              | <b>Monitoring frequency</b> | <b>Monitoring standard(s) or method(s)</b> |
| A1  | Dioxin-like PCBs (WHO-TEQ Humans / Mammals)  | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period | Bi-annual                   | BS EN 1948-4                               |
| A1  | Dioxin-like PCBs (WHO-TEQ Fish)  | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period | Bi-annual                   | BS EN 1948-4                               |
| A1  | Dioxin-like PCBs (WHO-TEQ Birds)   | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period | Bi-annual                   | BS EN 1948-4                               |
| A1  | Specific individual polycyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6. | Incineration exhaust gases |                               | periodic over minimum 6 hours, maximum 8 hour period | Bi-annual                   | BS ISO 11338 Parts 1 and 2.                |

| <b>Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements</b> |                            |                            |                               |                         |                             |  |
|--|----------------------------|----------------------------|-------------------------------|-------------------------|-----------------------------|--|
| <b>Emission point ref. &amp; location</b>  | <b>Parameter</b>           | <b>Source</b>              | <b>Limit (including unit)</b> | <b>Reference period</b> | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b>                         |
| A1   | Particulate matter         | Incineration exhaust gases | 150 mg/m <sup>3</sup>         | ½-hr average            | Continuous measurement      | BS EN 14181 and BS EN 15267-3 during abatement plant failure |
| A1   | Total Organic Carbon (TOC) | Incineration exhaust gases | 20 mg/m <sup>3</sup>          | ½-hr average            | Continuous measurement      | BS EN 14181 and BS EN 15267-3 during abatement plant failure |
| A1   | Carbon monoxide            | Incineration exhaust gases | 100 mg/m <sup>3</sup>         | ½-hr average            | Continuous measurement      | BS EN 14181 and BS EN 15267-3 during abatement plant failure |
| A2   | No parameters              | Emergency relief vent      | No limit set                  | -                       | -                           | -  |



| <b>Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b> |                                   |                   |                           |                         |                             |                                      |
|---|-----------------------------------|-------------------|---------------------------|-------------------------|-----------------------------|--------------------------------------|
| <b>Emission point ref. &amp; location</b>   | <b>Source</b>                     | <b>Parameter</b>  | <b>Limit (incl. unit)</b> | <b>Reference Period</b> | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b> |
| W1 as described on C2 Redditch WTS Site Plan rev 1, 13th February 2018  | Uncontaminated site surface water | No parameters set | No limit set              |                         |                             |                                      |

| <b>Table S3.3 Point source emissions to sewer, emission limits and monitoring requirements</b> |   |                  |                           |                         |                             |                                      |
|--|---|------------------|---------------------------|-------------------------|-----------------------------|--------------------------------------|
| <b>Emission point ref. &amp; location</b>  | <b>Source</b>                           | <b>Parameter</b> | <b>Limit (incl. Unit)</b> | <b>Reference period</b> | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b> |
| S1 as described on C2 Redditch WTS Drain Plan rev 1, 13th February 2018                        | Discharge from 3-stage interceptor tank | Mercury          | 0.04 mg/l                 | -                       | Monthly spot sample         | BS6068 Section 2.60:1998             |
| S1 as described on C2 Redditch WTS Drain Plan rev 113th February 2018                          | Discharge from 3-stage interceptor tank | Cadmium          | 0.1 mg/l                  | -                       | Monthly spot sample         | BS6068 Section 2.60:1998             |

| <b>Table S3.4 Process monitoring requirements</b>  |                                  |                             |                                      |   |
|--|----------------------------------|-----------------------------|--------------------------------------|---|
| <b>Emission point reference or source or description of point of measurement</b>                   | <b>Parameter</b>                 | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b> | <b>Other specifications</b>                       |
| As identified in the Application   | Wind Speed and Direction         | Continuous                  | Anemometer                           |   |
| Location close to the Combustion Chamber inner wall or as identified and justified in Application. | Temperature (° C)                | Continuous                  | Traceable to national standards      | As agreed in writing with the Agency.             |
| A1   | Exhaust gas temperature          | Continuous                  | Traceable to national standards      | As agreed in writing with the Agency.             |
| A1   | Exhaust gas pressure             | Continuous                  | Traceable to national standards      | As agreed in writing with the Agency.             |
| A1   | Exhaust gas oxygen content       | Continuous                  | BS EN 15267-3<br>BS EN 14181         |   |
| A1   | Exhaust gas water vapour content | Continuous                  | BS EN 15267-3<br>BS EN 14181         | Unless gas is dried before analysis of emissions. |

| <b>Table S3.5 Residue quality</b>  |   |              |   |  |                              |
|--|---|--------------|---|--|------------------------------|
| <b>Emission point reference or source or description of point of measurement</b> | <b>Parameter</b>  | <b>Limit</b> | <b>Monitoring frequency</b>                     | <b>Monitoring standard or method *</b>   | <b>Other specific ations</b> |
| Bottom Ash   | TOC   | <3%          | 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. |              | Quarterly                                       | Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' |                              |
| Bottom Ash   | Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions              |              | Before use of a new disposal or recycling route | Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' |                              |
| APC Residues   | Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs. |              | Quarterly                                       | Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' |                              |
| APC Residues   | Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions              |              | Before use of a new disposal or recycling route | Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' |                              |

| <b>Table S3.5 Residue quality</b>  |   |              |   |  |                              |
|--|---|--------------|---|--|------------------------------|
| <b>Emission point reference or source or description of point of measurement</b> | <b>Parameter</b>  | <b>Limit</b> | <b>Monitoring frequency</b>                     | <b>Monitoring standard or method *</b>   | <b>Other specific ations</b> |
| Boiler Ash   | Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs. |              | Quarterly                                       | Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' |                              |
| Boiler 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' |                              |

\* 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.

| <b>Table S4.1 Reporting of monitoring data</b>  |   |   |                               |
|---|---|---|-------------------------------|
| <b>Parameter</b>  | <b>Emission or monitoring point/reference</b> | <b>Reporting period</b>                                 | <b>Period begins</b>          |
| Emissions to air<br>Parameters as required by condition 3.5.1   | A1  | Quarterly   | 1 Jan, 1 Apr, 1 Jul and 1 Oct |
| Emissions to sewer<br>Parameters as required by condition 3.5.1   | S1  | Bi-Annually   | 1 Jan and 1 Jul               |
| TOC<br>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<br>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<br>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<br>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<br>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                         |

| <b>Parameter</b>  | <b>Units</b> |
|---|--------------|
| Total Waste Incinerated   | tonnes       |
| Total Clinical Waste Incinerated                                      | tonnes       |
| Total Cytotoxic/Cytostatic waste Incinerated                          | tonnes       |
| Total Waste Transferred Off-Site (excluding wastes generated on-site) | tonnes       |
| Thermal energy produced (steam for export)                            | KWh          |
| Electrical energy used on installation                                | KWh          |
| Waste heat utilised by the installation                               | KWh          |

| <b>Parameter</b>                   | <b>Frequency of assessment</b> | <b>Units</b>  |
|------------------------------------|--------------------------------|---|
| Electrical energy imported to site | Annually                       | KWh / tonne of waste incinerated                                |
| Natural gas consumption            | Annually                       | KWh / tonne of waste incinerated                                |
| Mass of Bottom Ash produced        | Annually                       | Kg / tonne of waste incinerated                                 |
| Mass of APC residues produced      | Annually                       | Kg / tonne of waste incinerated                                 |
| Activated Carbon consumption       | Annually                       | Kg / tonne of waste incinerated                                 |
| Lime consumption                   | Annually                       | Kg / tonne of waste incinerated                                 |
| Water consumption                  | Annually                       | Kg / tonne of waste incinerated                                 |
| Periods of abnormal operation      | Annually                       | No of occasions and cumulative hours for current calendar year. |

| <b>Media/parameter</b>       | <b>Reporting format</b>  | <b>Date of form</b> |
|------------------------------|--|---------------------|
| Air                          | Form Air1-7 or other form as agreed in writing by the Environment Agency       | 28/02/2018          |
| Sewer                        | Form Sewer1 or other form as agreed in writing by the Environment Agency       | 28/02/2018          |
| Water and raw material usage | Form WU/RM1 1 or other form as agreed in writing by the Environment Agency     | 28/02/2018          |
| Energy usage                 | Form Energy1 or other form as agreed in writing by the Environment Agency      | 28/02/2018          |
| Waste disposal/recovery      | Form R1 or other form as agreed in writing by the Environment Agency           | 28/02/2018          |
| Residue quality              | Form Residue1-2 or other form as agreed in writing by the Environment Agency   | 28/02/2018          |
| Other performance indicators | Form Performance1 or other form as agreed in writing by the Environment Agency | 28/02/2018          |

## 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 |  |

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

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

|   |                            |
|---|----------------------------|
| <b>Time periods for notification following detection of a breach of a limit</b> |                            |
| <b>Parameter</b>  | <b>Notification period</b> |
|   |                            |
|   |                            |
|   |                            |

|  |  |
|--|--|
| <b>(c) Notification requirements for the detection of any significant adverse environmental effect</b> |  |
| <b>To be notified within 24 hours of detection</b>   |  |
| 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.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

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

“bottom ash” means ash falling through the grate or transported by the grate]

“CEM” Continuous emission monitor

“CEN” means Comité Européen de Normalisation

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

“daily average” for releases of substances to air means the average of valid half-hourly averages or 10 minute averages for CO 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.

“ELV” means Emission Limit Value.

“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.

“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.

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

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

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

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



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

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

“ISO” means International Standards Organisation.

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

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

“PAH” means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2,1-d)thiophene, Benzo[c]phenanthrene, Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenz[a,h]anthracene, Dibenz[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 as described in the response to Q32 of the Schedule 4 Notice.

“start up” is any period, where the plant has been non-operational, after igniting the auxiliary burner until waste has been fed to the incinerator in sufficient quantity to initiate steady-state conditions as described in the response to Q32 of the Schedule 4 Notice.

“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,

(d) where hazardous wastes are burned in plant covered by Schedule 13 of Environmental Permitting Regulations and the emissions of pollutants are reduced by gas treatment, standardisation of the gas with respect to oxygen content shall be carried out only if the oxygen concentration measured over the same period exceeds the relevant oxygen content defined in conditions (a) – (c)] above. In other cases, the measured emissions shall be standardised only for moisture, pressure and temperature.

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.

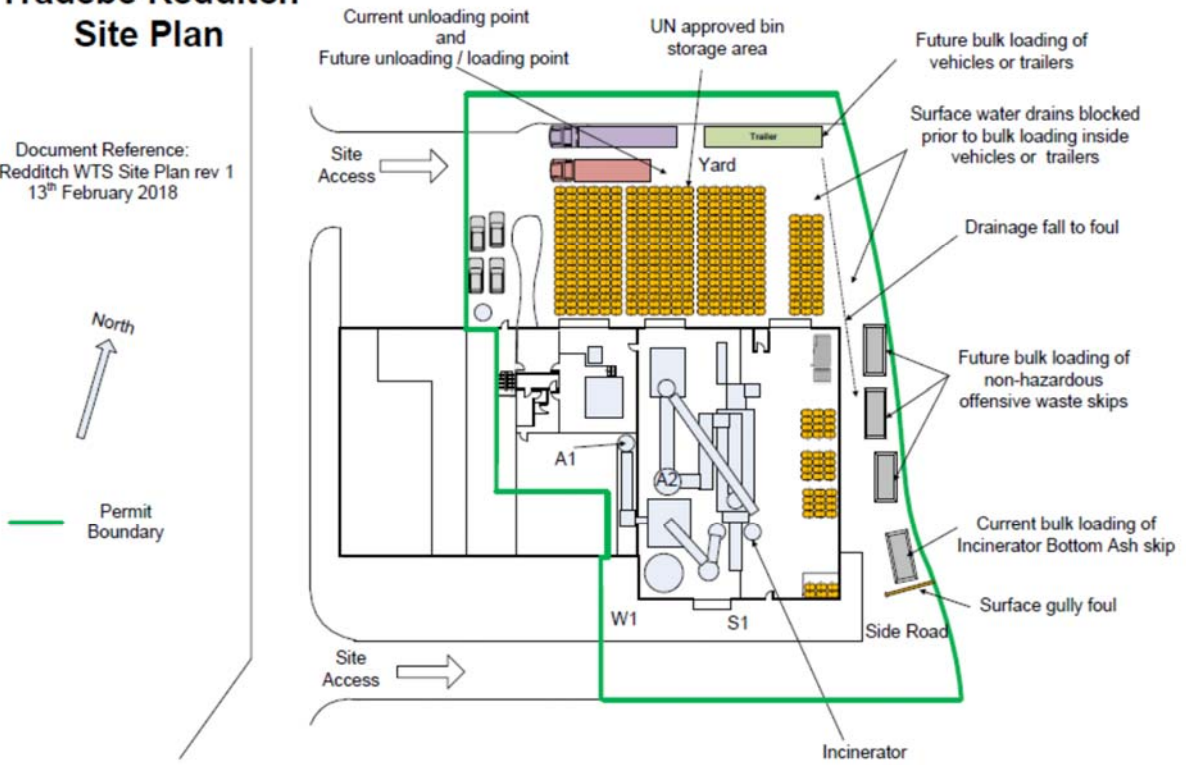
| <b>TEF schemes for dioxins and furans</b> |              |                         |               |              |
|---|--------------|-------------------------|---------------|--------------|
| <b>Congener</b>                           | <b>I-TEF</b> | <b>WHO-TEF</b>          |               |              |
|   | <b>1990</b>  | <b>2005</b>             | <b>1997/8</b> |              |
|   |              | <b>Humans / Mammals</b> | <b>Fish</b>   | <b>Birds</b> |
| <b>Dioxins</b>                            |              |                         |               |              |
| 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                  | -             | -            |
| <b>Furans</b>                             |              |                         |               |              |
| 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   |
| <b>Non-ortho PCBs</b>            |                  |           |         |
| 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   |
| <b>Mono-ortho PCBs</b>           |                  |           |         |
| 2,3,3',4,4'-PeCB (105)           | 0.00003          | <0.000005 | 0.0001  |
| 2,3,4,4',5-PeCB (114)            | 0.00003          | <0.000005 | 0.0001  |
| 2,3',4,4',5-PeCB (118)           | 0.00003          | <0.000005 | 0.00001 |
| 2',3,4,4',5-PeCB (123)           | 0.00003          | <0.000005 | 0.00001 |
| 2,3,3',4,4',5-HxCB (156)         | 0.00003          | <0.000005 | 0.0001  |
| 2,3,3',4,4',5'-HxCB (157)        | 0.00003          | <0.000005 | 0.0001  |
| 2,3',4,4',5,5'-HxCB (167)        | 0.00003          | <0.000005 | 0.00001 |
| 2,3,3',4,4',5,5'-HpCB (189)      | 0.00003          | <0.000005 | 0.00001 |

# Schedule 7 – Site plan

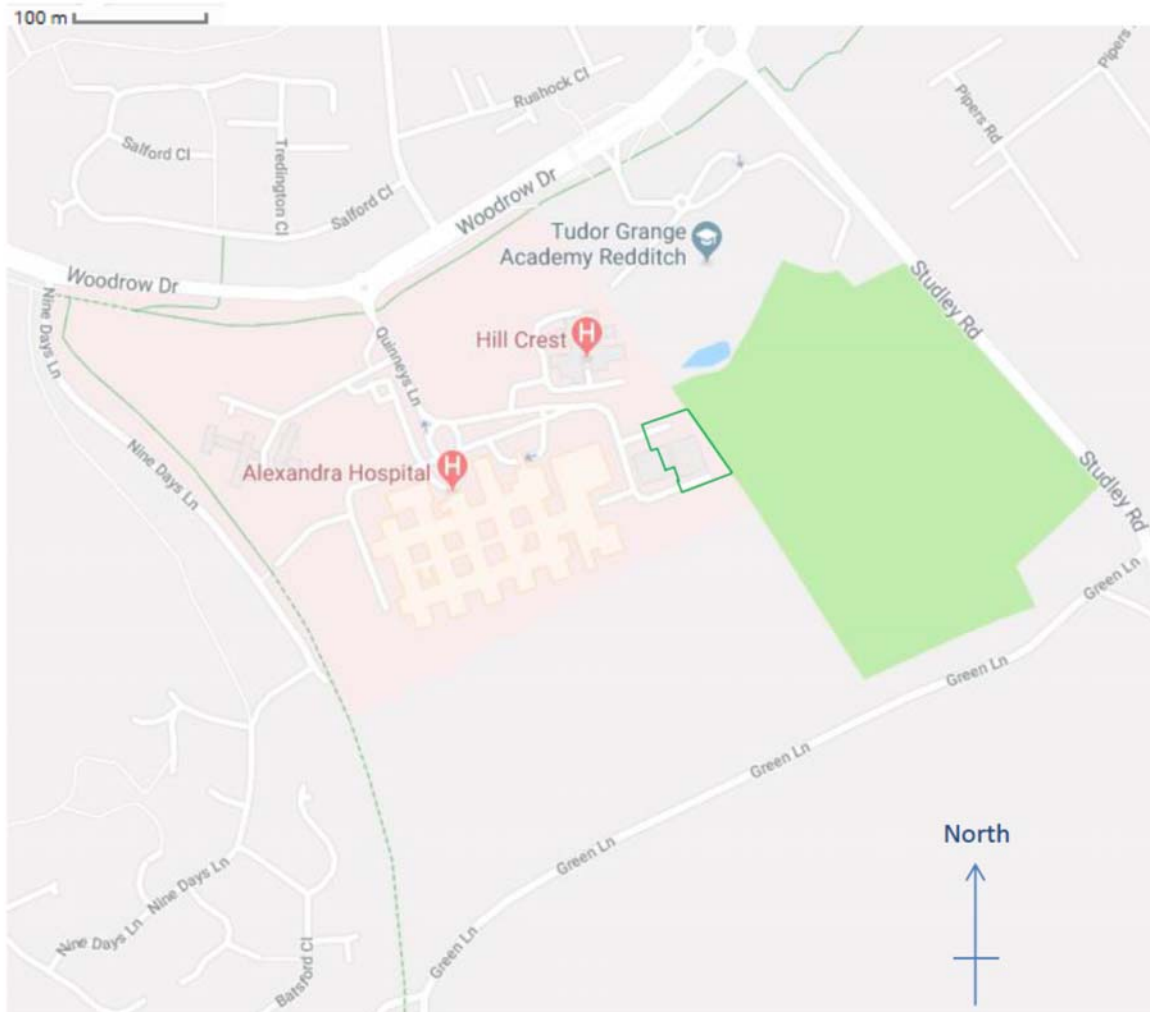
## Tradebe Redditch Site Plan

Document Reference:  
2 Redditch WTS Site Plan rev 1  
13<sup>th</sup> February 2018



# Site location

## 12th February 2018



### Legend

Permit Boundary: 

END OF PERMIT

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

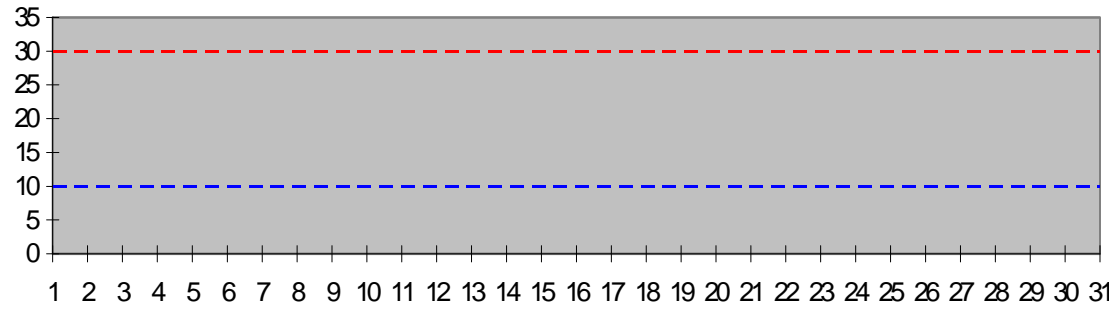
Facility : Redditch Clinical Waste Incinerator

Form Number : Air1 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for Particulates for the month of ....., 20\_\_**

**Daily and Half-hourly Average Monitoring Data**

- Daily average ELV
- Half-Hour average ELV
- Mean half hourly average
- Maximum half hourly average
- Minimum half hourly average
- Daily Average



| Monthly summary     |                       | Date                           | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------------------|-----------------------|--------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Half-hourly average |                       | Half-Hour average ELV          | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |    |
|                     | Monthly maximum       | 0 Maximum half hourly average  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Monthly mean          | ##### Mean half hourly average |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Monthly minimum       | 0 Minimum half hourly average  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Total invalid results | 0 No. of invalid results       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Sum of exceedances    | 0 No. of exceedances of ELV    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Daily average       |                       | Daily average ELV              | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |    |
|                     | Monthly maximum       | 0 Daily Average                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | No. of invalid days   | 0 Value valid? (Y/N)           | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  | Y  |    |
|                     | Sum of exceedances    | 0 Value exceeds ELV (Y/N)      | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  | N  |

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

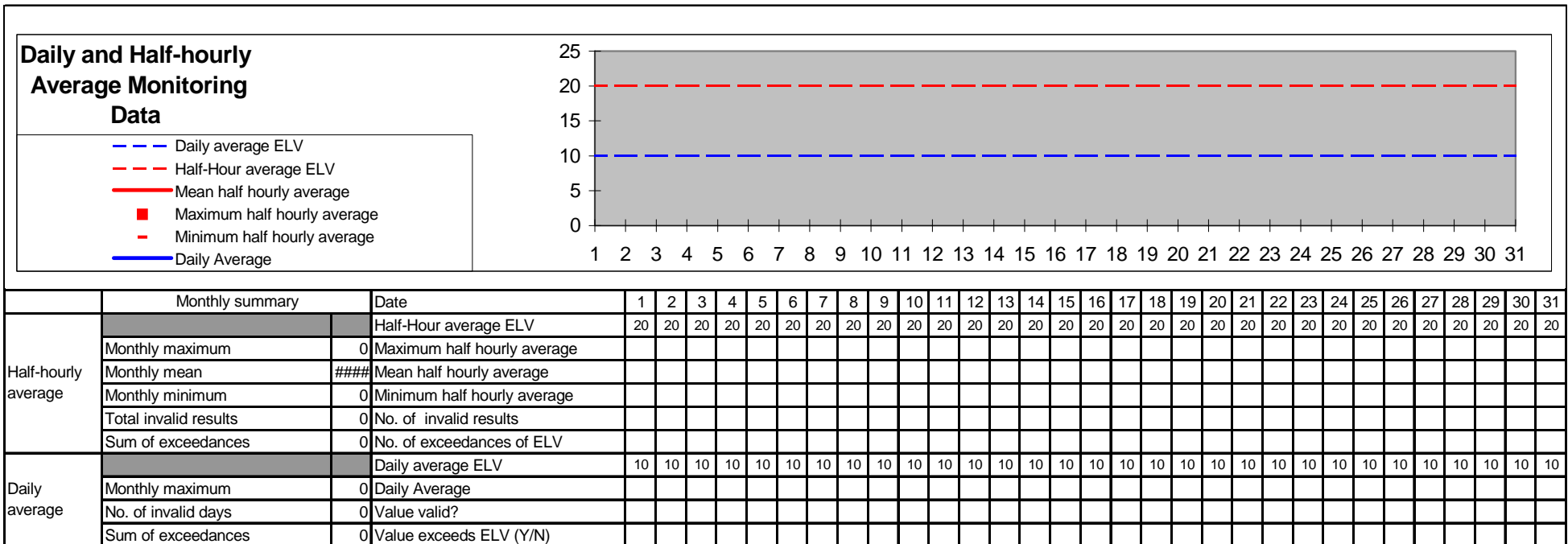
Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Air2 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for TOC for the month of ....., 20\_\_**



Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

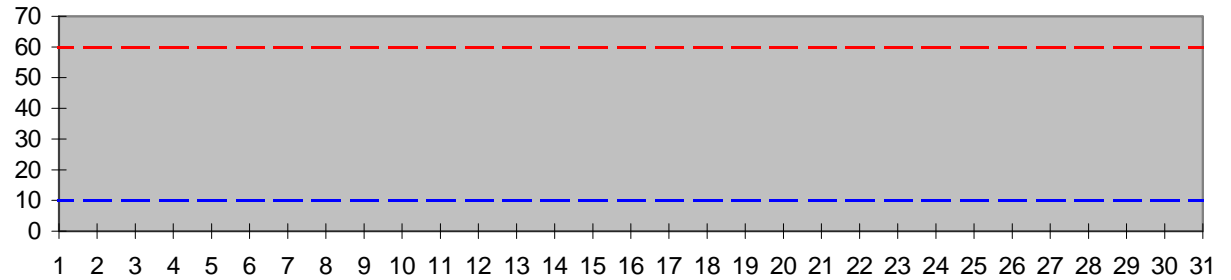
Facility : Redditch Clinical Waste Incinerator

Form Number : Air3 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for Hydrogen Chloride for the month of ....., 20\_\_**

**Daily and Half-hourly Average Monitoring Data**

- - - Daily average ELV
- - - Half-Hour average ELV
- Mean half hourly average
- Maximum half hourly average
- - - Minimum half hourly average
- Daily Average



| Monthly summary     |                       | Date                      | 1                           | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------------------|-----------------------|---------------------------|-----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Half-hourly average |                       | Half-Hour average ELV     | 60                          | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |    |
|                     | Monthly maximum       | 0                         | Maximum half hourly average |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Monthly mean          | ####                      | Mean half hourly average    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Monthly minimum       | 0                         | Minimum half hourly average |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Total invalid results | 0                         | No. of invalid results      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Sum of exceedances  | 0                     | No. of exceedances of ELV |                             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Daily average       |                       | Daily average ELV         | 10                          | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |    |
|                     | Monthly maximum       | 0                         | Daily Average               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | No. of invalid days   | 0                         | Value valid?                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                     | Sum of exceedances    | 0                         | Value exceeds ELV (Y/N)     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)



Permit Number : VP3136ZD

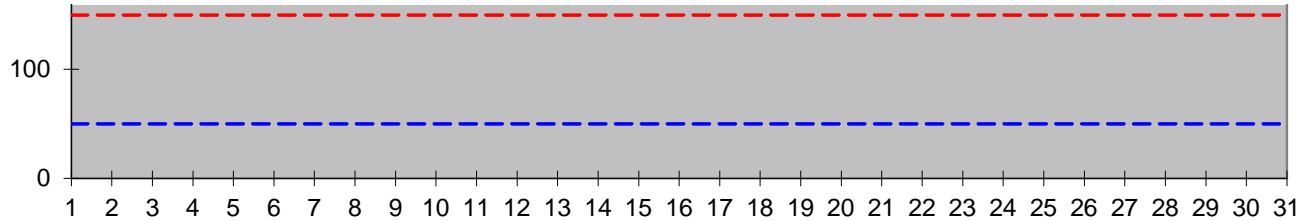
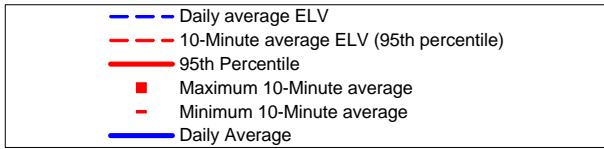
Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Air4 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for Carbon Monoxide for the month of ....., 20\_\_**

**Data**



| Monthly summary   |                                    | Date  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  |
|-------------------|------------------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10-Minute average |                                    | 10-Minute average ELV (95th percentile)       | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
|                   | Monthly maximum                    | Maximum 10-Minute average                     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | Monthly 95th percentile            | 95th Percentile                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | Monthly minimum                    | Minimum 10-Minute average                     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | Total invalid results              | No. of invalid results                        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | Sum of exceedances                 | Number of results above 150 mg/m <sup>3</sup> |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | 95th percentile ELV exceeded (y/n) |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Daily average     |                                    | Daily average ELV                             | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  |     |
|                   | Monthly maximum                    | Daily Average                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | No. of invalid days                | Value valid?                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                   | Sum of exceedances                 | Value exceeds ELV (Y/N)                       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

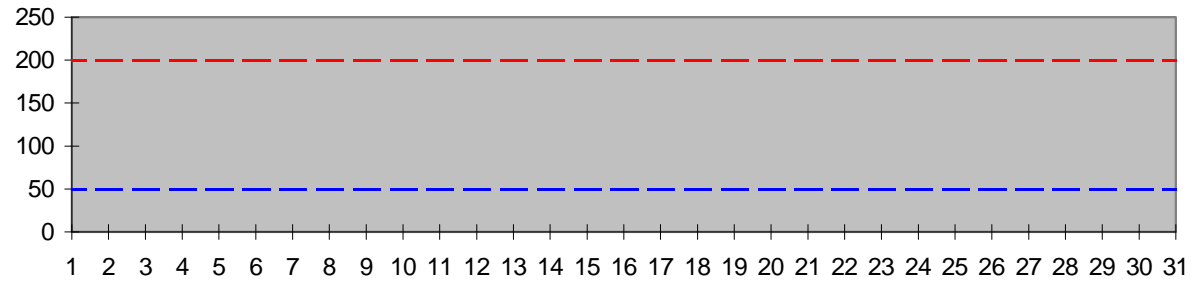
Facility : Redditch Clinical Waste Incinerator

Form Number : Air5 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for Sulphur Dioxide for the month of ....., 20\_\_**

**Daily and Half-hourly Average Monitoring Data**

- - - Daily average ELV
- - - Half-Hour average ELV
- Mean half hourly average
- Maximum half hourly average
- - - Minimum half hourly average
- Daily Average



| Monthly summary     |                         | Date | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  |  |  |
|---------------------|-------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Half-hourly average | Half-Hour average ELV   |      | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |  |  |
|                     | Monthly maximum         | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | Monthly mean            | #### |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | Monthly minimum         | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | Total invalid results   | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| Daily average       | Sum of exceedances      | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | Daily average ELV       |      | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  |  |  |
|                     | Monthly maximum         | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | No. of invalid days     | 0    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| Sum of exceedances  | 0                       |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|                     | Value exceeds ELV (Y/N) |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |

Signed .....

Date.....

(authorised to sign as representative Tradebe Healthcare National Limited)

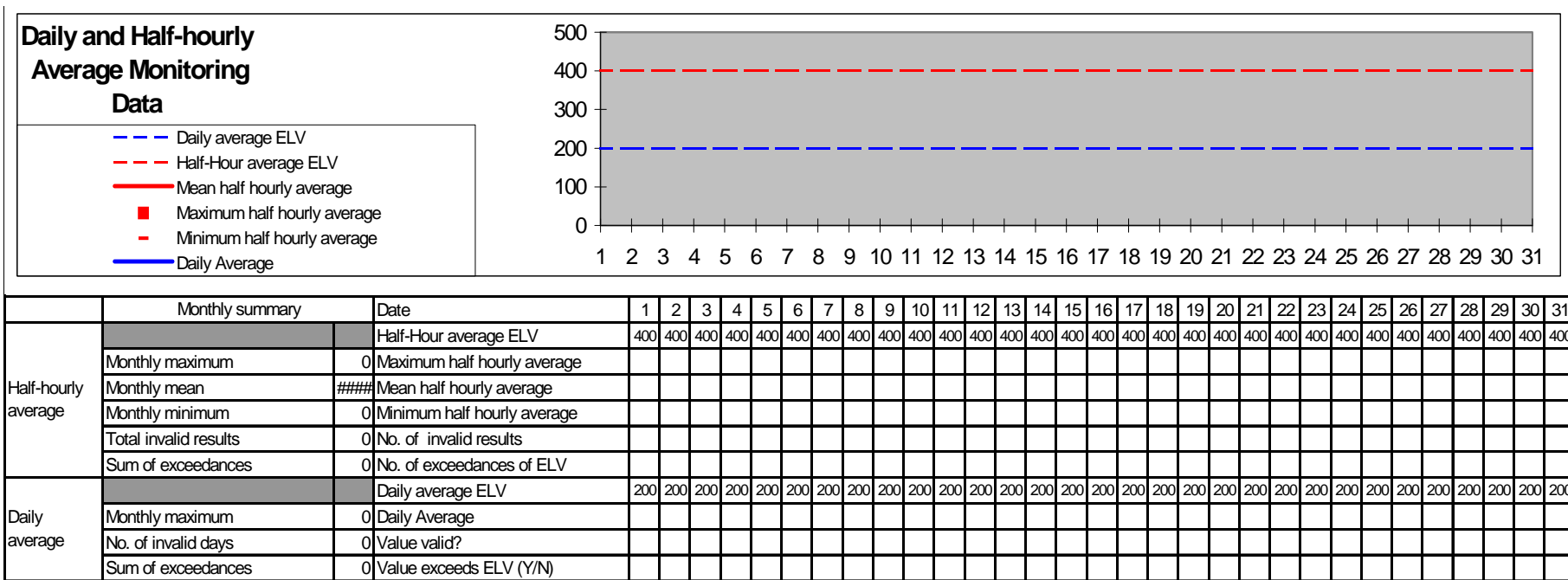
Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Air6 / 28/02/2018

**Reporting of Continuously Monitored Emissions to Air for Oxides of Nitrogen for the month of ....., 20\_\_**



Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Air7 / 28/02/2018

**Reporting of periodically monitored emissions to air for the period from ..... to .....**

| Emission Point | Substance / Parameter  | Emission Limit Value   | Reference Period                                  | Result <sup>[1]</sup> | Test Method                     | Result Date and Time <sup>[2]</sup> | Uncertainty <sup>[3]</sup> |
|----------------|--|------------------------|---|-----------------------|---------------------------------|-------------------------------------|----------------------------|
| A1             | Hydrogen fluoride  | 2 mg/m <sup>3</sup>    | Periodic over minimum 1-hour period               |                       | BS ISO 15713                    |                                     |                            |
| A1             | Cadmium & thallium and their compounds (total)                   | 0.05 mg/m <sup>3</sup> | over minimum 30 minute, maximum 8 hour period     |                       | BS EN 14385                     |                                     |                            |
| A1             | Mercury and its compounds  | 0.05 mg/m <sup>3</sup> | over minimum 30 minute, maximum 8 hour period     |                       | BS EN 13211                     |                                     |                            |
| A1             | Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) | 0.5 mg/m <sup>3</sup>  | over minimum 30 minute, maximum 8 hour period     |                       | BS EN 14385                     |                                     |                            |
| A1             | Dioxins / Furans (I-TEQ)   | 0.1 ng/m <sup>3</sup>  | over minimum 6 hour period, maximum 8 hour period |                       | 5 BS EN 1948-4 Parts 1, 2 and 3 |                                     |                            |
| A1             | Dioxin-like PCBs (WHO-TEQ Humans / Mammals)                      | No limit applies       | over minimum 6 hour period, maximum 8 hour period |                       | 6 BS EN 1948-4                  |                                     |                            |
| A1             | 7 Dioxin-like PCBs (WHO-TEQ Fish)                                | No limit applies       | over minimum 6 hour period, maximum 8 hour period |                       | 8 BS EN 1948-4                  |                                     |                            |
| A1             | Dioxin-like PCBs (WHO-TEQ Birds)                                 | No limit applies       | over minimum 6 hour period, maximum 8 hour period |                       | 9 BS EN 1948-4                  |                                     |                            |

| Emission Point | Substance / Parameter                                  | Emission Limit Value | Reference Period                                  | Result <sup>[1]</sup> | Test Method                      | Result Date and Time <sup>[2]</sup> | Uncertainty <sup>[3]</sup> |
|----------------|--|----------------------|---|-----------------------|----------------------------------|-------------------------------------|----------------------------|
| A1             | Dioxins / furans (WHO-TEQ Humans / Mammals)            | No limit applies     | over minimum 6 hour period, maximum 8 hour period |                       | 10 BS EN/T 1948-4                |                                     |                            |
| A1             | Dioxins / furans (WHO-TEQ Fish)                        | No limit applies     | over minimum 6 hour period, maximum 8 hour period |                       | 11 BS EN/T 1948-4                |                                     |                            |
| A1             | Dioxins / furans (WHO-TEQ Birds)                       | No limit applies     | over minimum 6 hour period, maximum 8 hour period |                       | 12 BS EN/T 1948-4                |                                     |                            |
|                | <b><i>Poly-cyclic aromatic hydrocarbons (PAHs)</i></b> |                      | over minimum 6 hour period, maximum 8 hour period |                       |                                  |                                     |                            |
| A1             | Total  | No limit applies     |   |                       | BS ISO 11338-1 and BS ISO 1138-2 |                                     |                            |
| A1             | Anthanthrene   | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo{a}anthracene                                     | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo[b]fluoranthene                                   | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo[k]fluoranthene                                   | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo[b]naph(2,1-d)thiophene                           | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo[c]phenanthrene                                   | No limit applies     |   |                       |                                  |                                     |                            |
| A1             | Benzo[ghi]perylene                                     | No limit applies     |   |                       |                                  |                                     |                            |

| Emission Point | Substance / Parameter | Emission Limit Value | Reference Period | Result <sup>[1]</sup> | Test Method | Result Date and Time <sup>[2]</sup> | Uncertainty <sup>[3]</sup> |
|----------------|-----------------------|----------------------|------------------|-----------------------|-------------|-------------------------------------|----------------------------|
| A1             | Benzo[a]pyrene        | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Cholanthrene          | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Chrysene              | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Cyclopenta(c,d)pyrene | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Dibenzo[ah]anthracene | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Dibenzo[a,i]pyrene    | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Fluoranthene          | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Indo[1,2,3-cd]pyrene  | No limit applies     |                  |                       |             |                                     |                            |
| A1             | Naphthalen            |                      |                  |                       |             |                                     |                            |

[1] For dioxins and dioxin-like PCBs, the result are to 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

[2] The date and time of the sample that produced the result is given.

[3] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....  
 (authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Sewer1 / 28/02/2018

**Reporting of emissions to sewer for the period from ..... to .....**

| Emission Point | Substance / Parameter | Emission Limit Value | Reference Period | Result <sup>[1]</sup> | Test Method <sup>[2]</sup> | Sample Date and Times <sup>[3]</sup> | Uncertainty <sup>[4]</sup> |
|----------------|-----------------------|----------------------|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------|
|                |                       |                      |                  |                       |                            |                                      |                            |
|                |                       |                      |                  |                       |                            |                                      |                            |
|                |                       |                      |                  |                       |                            |                                      |                            |

1. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : R1 / 28/02/2018

**Reporting of Waste Disposal and Recovery for the year .....**

| Waste Description                          | Disposal |        | Recovery |
|--|----------|--------|----------|
|  | Route    | Tonnes | Tonnes   |
| 1) Hazardous Wastes                        |          |        |          |
| APC Residues                               |          |        |          |
| IBA which is classified as hazardous waste |          |        |          |
| Total hazardous waste                      |          |        |          |
|  |          |        |          |
| 2) Non-Hazardous Wastes                    |          |        |          |
| IBA  |          |        |          |
| Other non-hazardous wastes                 |          |        |          |
| Total non-hazardous waste                  |          |        |          |
|  |          |        |          |
| <b>TOTAL WASTE</b>                         | -        |        |          |



Operator's comments :

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : WU/RM1 / 28/02/2018

**Reporting of Water and Other Raw Material Usage for the year .....**

| <b>Raw Material</b>                      | <b>Usage</b> | <b>Unit</b>    | <b>Specific Usage</b> | <b>Unit</b>       |
|--|--------------|----------------|-----------------------|-------------------|
| Mains water                              |              | m <sup>3</sup> |                       | m <sup>3</sup> /t |
| Total water usage                        |              | m <sup>3</sup> |                       | m <sup>3</sup> /t |
| Urea                                     |              | Tonnes         |                       | kg/t              |
| Activated carbon                         |              | Tonnes         |                       | kg/t              |
| Lime/hydrated lime or sodium bicarbonate |              | Tonnes         |                       | kg/t              |

Operator's comments :

[Empty rectangular box for signature or stamp]

Signed ..... Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Energy1 / 28/02/2018

**Reporting of Energy Usage/Export for the year .....**

| Energy Source               | Energy Usage | Unit   | Primary Energy<br>note 1<br>(MWh) |
|-----------------------------|--------------|--------|-----------------------------------|
| Electricity produced        |              | MWh    |                                   |
| Electricity imported        |              | MWh    |                                   |
| Electricity Exported        |              | MWh    |                                   |
| Gas Oil                     |              | tonnes |                                   |
| Steam/hot water<br>Exported |              | MWh    |                                   |

Note 1 Conversion factor for imported electricity to primary energy =

Operator's comments :

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Residues1 / 28/02/2018

**Reporting of residue quality for the period from .....to.....**

| <b>Ash Composition (TOC/LOI)</b> |                |                                      |
|----------------------------------|----------------|--------------------------------------|
|                                  | <b>LOI (%)</b> | <b>% Carbon (TOC) <sup>w/w</sup></b> |
| Bottom Ash                       | *              | *                                    |

\* At least one of LOI or TOC to be reported.

| <b>Ash Composition - Metals</b> |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|
|                                 | <b>Sb<br/>mg/kg</b> | <b>Cd<br/>mg/kg</b> | <b>Tl<br/>mg/kg</b> | <b>Hg<br/>mg/kg</b> | <b>Pb<br/>mg/kg</b> | <b>Cr<br/>mg/kg</b> | <b>Cu<br/>mg/kg</b> | <b>Mn<br/>mg/kg</b> | <b>Ni<br/>mg/kg</b> | <b>As<br/>mg/kg</b> | <b>Co<br/>mg/kg</b> | <b>V<br/>mg/kg</b> | <b>Zn<br/>mg/kg</b> |
| Bottom ash                      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| Fly ash                         |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| APC residues                    |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| Other solid residues            |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |

| <b>Ash composition dioxins and dioxin-like PCBs</b> |                                   |                                 |              |             |                                   |
|---|-----------------------------------|---------------------------------|--------------|-------------|-----------------------------------|
|   | <b>DIOXIN<br/>I-TEQ<br/>ng/kg</b> | <b>DIOXIN<br/>WHO-TEQ ng/kg</b> |              |             | <b>DIOXIN-LIKE PCBs<br/>ng/kg</b> |
|   |                                   | <b>Humans / mammals</b>         | <b>Birds</b> | <b>Fish</b> |                                   |
| Bottom ash  |                                   |                                 |              |             |                                   |
| Fly ash   |                                   |                                 |              |             |                                   |
| APC residues  |                                   |                                 |              |             |                                   |
| Other solid residues                                |                                   |                                 |              |             |                                   |

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Residues2 / 28/02/2018

**Reporting of Ash Solubility for the period from .....to.....**

| <b>Ash solubility – total soluble fractions</b> |                          |
|---|--------------------------|
|   | Total soluble fraction % |
| Bottom ash                                      |                          |
| Fly ash   |                          |
| APC residues                                    |                          |
| Other solid residues                            |                          |

| <b>Ash Solubility - Metals</b> |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|
|                                | <b>Sb<br/>mg/kg</b> | <b>Cd<br/>mg/kg</b> | <b>Tl<br/>mg/kg</b> | <b>Hg<br/>mg/kg</b> | <b>Pb<br/>mg/kg</b> | <b>Cr<br/>mg/kg</b> | <b>Cu<br/>mg/kg</b> | <b>Mn<br/>mg/kg</b> | <b>Ni<br/>mg/kg</b> | <b>As<br/>mg/kg</b> | <b>Co<br/>mg/kg</b> | <b>V<br/>mg/kg</b> | <b>Zn<br/>mg/kg</b> |
| Bottom ash                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| Fly ash                        |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| APC residues                   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |
| Other solid residues           |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                    |                     |

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)

Permit Number : VP3136ZD

Operator : Tradebe Healthcare National Limited

Facility : Redditch Clinical Waste Incinerator

Form Number : Performance1 / 28/02/2018

**Reporting of other performance indicators for the period.....**

| Parameter   | Result |
|---|--------|
|   |        |
| Number of periods of abnormal operation                       |        |
| Cumulative hours of abnormal operation for this calendar year |        |

Operator's comments :

Signed .....

Date.....

(authorised to sign as representative of Tradebe Healthcare National Limited)