

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Grundon Waste Management Limited

Star Works Treatment Plant
Star Works
Star Lane
Knowl Hill
Berkshire
RG10 9XY

Variation application number
EPR/YP3237SD/V003

Consolidated permit number
EPR/YP3237SD

Star Works Treatment Plant

Consolidated permit number EPR/YP3237SD

Introductory note

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

The following notice gives notice of the variation of environmental permits EPR/YP3237SD and EPR/AP3290EJ referred to in the status logs below and the replacement of those permits with one consolidated environmental permit.

The installation permit EPR/YP3237SD is varied as follows:

- an increase in storage volumes for hazardous and non hazardous wastes;
- addition of R13 storage activity;
- addition of 14 EWC codes;
- update to emission points due to plant modifications;
- correction to site address,
- additional EWC codes for the acceptance of aerosols.

The listed activity references have changed following the implementation of the Industrial Emissions Directive (IED), and are shown below. A new condition (3.1.3) is also added as required by IED relating to soil and groundwater monitoring.

The waste facility permit EPR/AP3290EJ for clinical waste treatment has been consolidated with this installations permit and all activities are now covered by this one consolidated permit updated to modern conditions.

The EPR Schedule 1 activities undertaken at the site are;

Section 5.3 A(1)(a) disposal of hazardous waste with a capacity exceeding 10 tonnes per day involving:

- ii) physico-chemical treatment, and
- iii) blending or mixing, and
- iv) repackaging.

Section 5.4 A(1)(a) disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving ii) physico-chemical treatment.

Section 5.6 A(1)(a) temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.

There is also a waste operation (non-hazardous waste transfer) and some directly associated activities as detailed in table S1.1.

Site and operation information:

The installation lies approximately 0.5km west of Knowl Hill and 6.5km west of Maidenhead at National Grid Reference SU 820 795.

The operations carried out on site are the receipt and storage of non-hazardous waste and the receipt, storage and treatment of hazardous waste using two autoclaves.

The wastes which come from the clinical and healthcare sector are brought to site in yellow 770 litre bins.

The Hydroclave treatment process sterilises the hazardous waste through a process of steam heating and high pressure.

All waste is stored in leak proof containers, no loose bags are stored within the installation.

Storage limits have been increased to 80 tonnes within the building and 140 tonnes in the external storage area; these limits apply to a combination of hazardous and non-hazardous wastes for the listed activities.

The maximum annual throughput for the clinical waste activity is 22,995 tonnes.

Emissions to air from the site comprise the abatement plant for the Hydroclaves and the boiler exhaust, for which emission limits and monitoring are in place.

There is a discharge to sewer for condensate under consent from Thames Water.

There are 17 Sites of Special Scientific Interest (SSSI) and 1 Special Area of Conservation (SAC) within 10km of the installation.

The schedules specify the changes made to the permit.

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

Status log of permit A: EPR/YP3237SD

Description	Date	Comments
Application received	Duly made 23/12/05	Application for storage and treatment of hazardous and non hazardous wastes
Additional information received	17/03/06; 21/03/06; 15/05/06	
Permit determined EPR/YP3237SD	28/09/06	Original permit issued to Grundon Waste Management Limited
Variation determined EPR/YP3237SD/V002	19/04/10	Variation to increase waste storage capacity.
Change of fact; registered office address	02/02/11	
Application EPR/YP3237SD/V003 (variation and consolidation)	Duly made 02/01/14	Application to vary the permit, consolidate with EPR/AP3290EJ and update to modern conditions.
Additional information Received	03/03/14; 17/03/14; 24/03/14.	
Variation determined EPR/YP3237SD/V003	28/03/14	Varied and consolidated permit issued in modern condition format

Status log of permit B: EPR/AP3290EJ

Description	Date	Comments
Application received	Duly made 13/02/04	Application for storage and treatment of controlled waste
Permit determined EAWML 83479 [EPR/AP3290EJ]	03/12/04	Original permit issued to Grundon Waste Management Limited
Variation determined EPR/AP3290EJ/V002	15/07/05	Variation to amend limits of activities, permitted waste types and quantities, working plan notifications and waste treatment process
Application EPR/YP3237SD/V003 [variation & consolidation]	Duly made 02/01/14	Application to consolidate this permit with installations permit EPR/YP3237SD
Variation determined EPR/YP3237SD/V003	28/03/14	Varied and consolidated permit issued in modern condition format.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulations 18 and 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates environmental permits

permit numbers:

EPR/YP3237SD

EPR/AP3290EJ

issued to

Grundon Waste Management Limited (“the operator”)

whose registered office is

Thames House

Oxford Road

Benson

Wallingford

Oxfordshire

OX10 6LX

company registration number 04245965

to operate regulated facilities at:

Star Works Treatment Plant

Star Works

Star Lane

Knowl Hill

Berkshire

RG10 9XY

to the extent set out in the schedules.

The notice shall take effect from 28 March 2014.

The number of the consolidated permit is EPR/YP3237SD.

Name

Date

Anne Nightingale

28 March 2014

Authorised on behalf of the Environment Agency

Schedule 1 – changes in the permit

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 2010

Permit number
EPR/YP3237SD

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/YP3237SD/V003 authorising,

Grundon Waste Management Limited (“the operator”),

of

Thames House
Oxford Road
Benson
Wallingford
Oxfordshire
OX10 6LX

company registration number 04245965

to operate an installation and a waste operation at:

Star Works Treatment Plant

Star Works

Star Lane

Knowl Hill

Berkshire

RG10 9XY

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

Name	Date
Anne Nightingale	28 March 2014

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1; A1 to A7, the operator shall:
- (a) take appropriate measures to ensure that 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.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1; A1 to A7, the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

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

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1; A1 to A7; waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

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

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“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.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

- 2.3.3 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2, S2.3 and S2.4; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.6 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.
- 2.3.7 Notwithstanding the operating techniques referenced in condition 2.3.1 the following restrictions shall apply to activities in the external storage area.
- (a) The total number of waste container movements into and out of the external storage area shall not exceed 5 in any day.
 - (b) Waste containers shall only be moved into or out of the external storage area between the hours of; 0700 – 1900 Monday to Friday and 0700 – 1200 Saturday and Sunday.
 - (c) Containers shall not be stacked on top of other containers.
 - (d) Operating procedures will put in place to prevent and contain any spillage of waste from the containers. The condition of containers will be checked daily.
 - (e) Containers will be removed from the storage area in the event that there is any risk of nuisance from odour. Daily odour checks will be carried out.
 - (f) Waste shall not be loaded into or removed from the containers while they are in the external storage area.
 - (g) In the event that refrigeration equipment is used it will not be operated between the hours of 1900 and 0700.
 - (h) Wastes with code 18 01 02 shall not be stored in the external storage area.
 - (i) Records shall be kept of all container movements into and out of the external storage area including a record of the days each container remains in store.

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 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan 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 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.
- 3.2.4 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 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 and S3.2;
 - (b) ambient air monitoring specified in table S3.3;
 - (c) process monitoring specified in table S3.4.
- 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 3.1.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 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 and S3.2 unless otherwise agreed in writing by the Environment Agency.

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.

4 Information

4.1 Records

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

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

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

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1; A1 to A7, 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.
- 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 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

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 “without delay”, in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A1	S5.3 A(1)(a)(ii)	Disposal of hazardous waste with a capacity exceeding 10 tonnes per day involving: physico-chemical treatment. (D9).	<p>Treatment of hazardous waste in 2 autoclave lines prior to disposal.</p> <p>Waste types as specified in table S2.2.</p> <p>Hazardous waste treatment subject to a total daily limit of 62.4 tonnes per day for the treatment in the Hydroclave of hazardous wastes.</p>
A2	S5.3 A(1)(a)(iii)	Disposal of hazardous waste with a capacity exceeding 10 tonnes per day involving: blending or mixing, (D13).	<p>Transfer operation: From receipt of hazardous waste and mixing prior to disposal.</p> <p>Waste types as specified in table S2.3</p>
A3	S5.3 A(1)(a)(iv)	Disposal of hazardous waste with a capacity exceeding 10 tonnes per day involving: repackaging (D14).	<p>Transfer operation: From receipt of hazardous waste and repackaging prior to disposal.</p> <p>Waste types as specified in table S2.3</p>
A4	S5.6 A(1)(a)	Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes (D15).	<p>Notwithstanding the throughput capacity, the combined storage of hazardous and non-hazardous waste within the building shall not exceed 80 tonnes at any time.</p> <p>The combined storage capacity of hazardous and non-hazardous waste in the external storage area shall not exceed 140 tonnes at any time.</p> <p>Waste types as specified in table S2.3</p>

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
	Directly Associated Activity		
A5	Steam raising plant	Steam raising plant, not exceeding 2.8MW thermal input	From receipt of fuel (natural gas) to disposal of waste and release of combustion products.
A6	Compaction of treated waste	Compaction of non-hazardous healthcare waste following treatment in Hydroclave.	-
A7	Bin washing	Washing of containers used for healthcare waste storage	-
	Description of activities for waste operations	Limits of activities	
A8 waste activities:	D15: Storage pending any of the operations numbered D1 to D14.	Transfer operation: Storage of non-hazardous waste.	
	D14: Repackaging prior to submission to any of the operations numbered D1 to D13.	The transfer of non-hazardous waste from vehicles or containers into other containers shall only take place within areas provided with an impermeable pavement and sealed drainage.	
	R13: Storage pending any of the operations numbered R1 to R12.		
Waste types as per table S2.4.			

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions 2.1.4 to 2.1.24 and 2.2 given in pages 13-70 of the application excluding the proposed limits in section B2.2.14 and B2.2.15 of the application	23/12/2005
Requests for additional information	Responses to the additional information requested	Responses dated: 17/03/2006; 21/03/2006; 15/05/2006.
Variation application (V002)	The Report on Proposed Changes to Star Works Treatment Plant sections 4 and 5. Grundon letter dated 24 July 2009 and plan relating to proposed speed restriction on access road	Report received 11/12/2008. 25/07/2009
Variation application (V003)	Application form part C3; section 3 and Appendix 4	02/01/14
Additional information	Justification and risk assessment to support acceptance of aerosols.	17/03/14

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
Disinfectant	At least 1% free chlorine

Table S2.2 Permitted waste types and quantities for Treatment in Hydroclave D9 installation activity A1

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Hazardous waste treatment will comprise of a total daily limit of 62.4 tonnes per day for treatment by hydroclave.

Waste code	Description
18	WASTES FROM HUMAN AND ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 03 ^{*1}	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 02 ^{*1}	wastes whose collection and disposal is subject to special requirements in order to prevent infection

¹ In addition, the following wastes are specifically excluded from waste treatment activities:

- i) : **Any waste** containing waste medicines and chemicals, waste contaminated with cytotoxic and cytostatic medicines, anatomical waste (identifiable human or animal tissue arising from healthcare), or dental amalgam.
- ii) : **Sharps boxes** containing any of the excluded wastes from i) and iii) or sharps that are contaminated with Pharmaceuticals in any quantity (including syringes that are fully discharged, partially discharged or undischarged).
- iii) : **Biohazard waste:** Any waste known or likely to contain ACDP Hazard Group 4 biological agents; any waste from a containment level 3 laboratory: and all microbiological cultures from any source, and, any potentially infected waste from pathology departments and other clinical or research laboratories (unless autoclaved before leaving the site of production).

Table S2.3 Permitted waste types and quantities for hazardous waste: storage and transfer activities A2, A3 and A4

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Waste code	Description
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 05	wastes from the manufacture, formulation, supply and use (MFSU) of pharmaceuticals
07 05 13*	solid wastes containing dangerous substances
08	WASTES FROM MANUFACTURE, FORMULATION, SUPPLY AND USE OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01	wastes from MFSU and removal of paint and varnish
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	wastes from the photographic industry
09 01 01*	water-based developer and activator solutions ¹
09 01 02*	water-based offset plate developer solutions ¹
09 01 03*	solvent-based developer solutions ¹
09 01 04*	fixer solutions ¹
09 01 06*	wastes containing silver from on-site treatment of photographic wastes
14	WASTE ORGANIC SOLVENTS, REFRIGERANTS AND FOAM/AEROSOL PROPELLANTS (EXCEPT 07 AND 08)
14 06	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 03*	other solvents and solvent mixtures
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by dangerous substances
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 02	wastes from electrical and electronic equipment
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
16 05	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing dangerous substances
16 05 06*	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
16 05 08*	Discarded organic chemicals consisting of or containing dangerous substances
18	WASTES FROM HUMAN AND ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 01 06*	chemicals consisting of or containing dangerous substances

Table S2.3 Permitted waste types and quantities for hazardous waste: storage and transfer activities A2, A3 and A4

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Waste code	Description
18 01 08*	cytotoxic and cytostatic medicines
18 01 10*	amalgam waste from dental care
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 02*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 02 05*	chemicals consisting of or containing dangerous substances
18 02 07*	cytotoxic and cytostatic medicines
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 31*	cytotoxic and cytostatic medicines

¹ These entries are limited to photographic wastes arising from healthcare and/or related research.

Table S2.4 Permitted waste types and quantities for non-hazardous waste: storage and transfer activity A8

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Waste code	Description
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 02	animal-tissue waste
02 01 03	plant-tissue waste
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 09	agrochemical waste other than those mentioned in 02 01 08
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing

Table S2.4 Permitted waste types and quantities for non-hazardous waste: storage and transfer activity A8

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Waste code	Description
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	materials unsuitable for consumption or processing
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 04	materials unsuitable for consumption or processing
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 05	wastes from the manufacture, formulation, supply and use (MFSU) of pharmaceuticals
07 05 14	solid wastes other than those mentioned in 07 05 13
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 04	metallic packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05	gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
18	WASTES FROM HUMAN AND ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 01	sharpes (except 18 01 03) ¹
18 01 02	body parts and organs including blood bags and blood preserves (except 18 01 13) ¹
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) ¹
18 01 07	chemicals other than those mentioned in 18 01 06 (excluding X-ray photochemicals)
18 01 09	medicines other than those mentioned in 18 01 08
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 01	sharpes (except 18 02 02) ¹
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection. ¹
18 02 06	chemicals other than those mentioned in 18 02 05 (excluding X-ray photochemicals)

Table S2.4 Permitted waste types and quantities for non-hazardous waste: storage and transfer activity A8

Maximum quantity: Combined storage capacity of hazardous / non hazardous waste on site shall not exceed 80 tonnes inside the building and 140 tonnes in the external storage area at any one time.

Waste code	Description
18 02 08	medicines other than those mentioned in 18 02 07
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 08	biodegradable kitchen and canteen waste
20 01 32	medicines other than those mentioned in 20 01 31
20 01 99	other fractions not otherwise specified (comprising only of separately collected fractions of municipal clinical waste (no 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).
20 03	other municipal wastes
20 03 01	mixed municipal waste

¹. 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

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

Emission point ref. & location	Parameter	Source	Limit (incl. unit) NOTE 1	Monitoring standard or method
A1 as shown on site plan attached	Bacillus spores	Hydroclave: abatement plant outlet	1000 cfu per cubic metre Note 2	To be agreed with the Environment Agency in compliance with EPR 5.07
B1 as shown on site plan attached	-	Boiler Plant exhaust: Thermal input: 2.8 MW	-	-

Note 1: These units relate to the overall monitoring period so the cfu benchmark applies to each individual sample of air to be taken, with a calculation made to report the results per cubic metre. These are based on a seeding dose of 1×10^6 spores per gram of waste load, and would need to be adjusted if the seed dose were higher or lower.

Note 2: These benchmarks are indicative only, and will be reviewed periodically.

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7 emission to Thames Water sewer under consent TWWL0001	-	Condensate from treatment chamber	-	-	-	-

Table S3.3 Ambient air monitoring requirements

Location or description of point of measurement	Parameter	Limit NOTE 2	Unit	Monitoring frequency	Monitoring standard or method
Air: sample points <10 m from the treatment plant	Bacillus spores	1000	Per m ³ NOTE 1	Annually	To be agreed with the Environment Agency in compliance with EPR 5.07
Air: sample points >10 m from the treatment plant		300			
Surface: sample points <10 m from the treatment plant		20000	Per m ² per hour		
Surface: sample points >10 m from the treatment plant		5000			

Note 1

These Units relate to the overall monitoring period so the cfu benchmark applies to:

- each individual sample of air taken, with a calculation made to report the result per cubic metre.
- for each individual settle plate (this is not an average) a calculation made to adjust for surface area of a settle plate and exposure time (for example if settle plates are deployed for only 15 minutes of every hour then the result must be multiplied by 4).
- These are based on a seeding dose of 1x10⁶ spores per gram of waste load, and would need to be adjusted accordingly if the seed dose were higher or lower.

Note 2: These benchmarks are indicative only, and will be reviewed periodically.

Table S3.4 Process monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Efficacy monitoring	Spore testing to demonstrate whether STAATT Level III Criteria for microbial inactivation has been achieved	Monthly	In accordance with 'How to comply with your environmental permit – additional guidance for Clinical waste (EPR5.07)'	Per Hydroclave unit

Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Ambient air monitoring Parameters as required by condition 3.5.1	Air – sample points <10m and >10m from the treatment plant. Surface – sample points <10 m and >10 m from the treatment plant.	Every 12 months	1 January
Efficacy monitoring Parameters as required by condition 3.5.1	Per Hydroclave unit	Every 12 months	1 January

Table S4.2: Annual production/treatment

Parameter	Units
Autoclaving of hazardous waste	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	28/03/14
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	28/03/14
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	28/03/14
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	28/03/14

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment

To be notified Immediately	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a permit condition

To be notified immediately	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period
In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
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

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

“Annex I” means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Annex II” means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“annually” means once every year.

“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.

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

“clinical waste” means waste from a healthcare activity (including veterinary healthcare) that –

(a) contains viable micro-organisms or their toxins which are known or reliably believed to cause disease in humans or other living organisms,

(b) contains or is contaminated with a medicine that contains a biologically active pharmaceutical agent, or

(c) is a sharp, or a body fluid or other biological material (including human and animal tissue) containing or contaminated with a dangerous substance within the meaning of Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances and waste of a similar nature from a non-healthcare activity.

“cytotoxic and cytostatic medicines” means any medicinal product that possesses one or more of the hazardous properties H6 Toxic, H7 Carcinogenic, H10 Toxic for Reproduction and H11 Mutagenic.

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

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

“emissions to land” includes emissions to groundwater.

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

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

the same meanings as in those Regulations.

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

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No. 894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No. 895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

“healthcare waste” means a waste classified under Chapter 18 of the list of Wastes, which is waste from Human and Animal Health Care and /or Related Research.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU of the EUROPEAN PARLIAMENT and of the COUNCIL of 24 November 2010 on industrial emissions.

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

“mixing of hazardous waste” means mixing hazardous waste as defined by Regulation 18 of the Hazardous Waste (England and Wales) Regulations 2005.

“offensive waste” means waste that –

(a) is not clinical waste,

(b) contains body fluids, secretions or excretions, and

(c) falls within code 18 01 04, 18 02 03 or 20 01 99 in Schedule 1 to (the List of Wastes (England) Regulations 2005

Pests” means Birds, Vermin and Insects

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

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

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

“sealed container” means a container which is fully enclosed, weather proof, does not allow any solid or liquid content to escape and is lockable.

“STAATT Level III” means the level III criteria set by the State and Territorial Association on Alternative Treatment Technologies (STAATT), as interpreted by Environment Agency guidance EPR 5.07 version 1.1. The STAATT Level III criteria requires the inactivation of vegetable bacteria, fungi, lipophilic/hydrophilic viruses, parasites and mycobacteria at 10^{-6} or greater; and inactivation of *Geobacillus stearothermophilus* or *Bacillus atrophaeus* spores at a 10^{-4} or greater.

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

“Waste 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.

Schedule 7 - Site plan



©Crown Copyright. All rights reserved. Environment Agency, 100026380, 2014.

END OF PERMIT