

# Notice of variation and consolidation with introductory note

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

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Tradebe Fawley Limited

Fawley High Temperature Incinerator  
Charlston Road  
Hardley  
Hythe  
Southampton  
SO45 3NX

### **Variation application number**

EPR/FP3935KL/V009

### **Consolidated permit number**

EPR/FP3935KL

# Fawley High Temperature Incinerator

## Permit number EPR/FP3935KL

### 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/FP3935KL and EPR/FP3435KW referred to in the status logs below and the replacement of those permits with a consolidated environmental permit.

In addition to the consolidation, the variation deletes the Energy from Waste activity which was permitted under Section 5.1 A(1)(a) on permit EPR/FP3435KW from Table 1.1.1 of the consolidated permit. The activity is surrendered without land, effectively bringing the land previously permitted under EPR/FP3435KW into the consolidated high temperature incinerator permit EPR/FP3935KL. A revised site plan is included at Schedule 5 of the consolidated permit.

The variation also increases the permitted limit of sulphur in fuel used in the incinerator to 1%.

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 permit A: EPR/FP3935KL</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application ZP3632SR	Duly Made 31/03/2005	
Request for additional air quality monitoring data	Request dated 20/09/2005	Response received 10/11/05. Additional response received 16/11/2005
Request for additional information	Request dated 08/11/2005	Response dated 11/11/2005
Response to request for information Schedule 4	Request dated 14/11/2005	Response dated 22/11/2005 (Part) Response dated 01/12/2005 (Part)
Supplementary Information	23/11/2005	Response received
Request for information by e-mail for information on the mobile scrubber	Request dated 08/12/2005	Response dated 09/12/2005
Permit ZP3632SR determined	21/12/2005	
Variation application EPR/ZP3632SR/V002	14/12/2006	Discharge limits to water
Transfer application EPR/HP3835UZ/T001 permit	Duly Made 05/03/2007	Full transfer of permit EPR/ZP3632SR
Transfer determined EPR/HP3835UZ	02/05/2007	Permit transferred from Veolia ES Onyx Ltd to Pyros Environmental Ltd. as permit EPR/HP3835UZ (Consolidation)
Transfer application EPR/FP3935KL/T001	Duly made 15/07/2007	Full transfer of permit EPR/HP3835UZ

<b>Status log of permit A: EPR/FP3935KL</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Transfer determined EPR/FP3935KL	17/07/2009	Permit transferred from Pyros Environmental Ltd. to Willacy Guinard Holdings Ltd. as permit EPR/FP3935KL
Administrative variation EPR/FP3935KL/V002 issued	24/03/2010	Name change from Willacy Guinard Holdings Ltd. to Tradebe Fawley Ltd.
Variation application EPR/FP3935KL/V003	Duly made 12/08/2011	Key changes include cooling tower, additional effluent stream and extension of installation boundary.
Variation application EPR/FP3935KL/V003 determined	03/10/2011	
Variation application EPR/FP3935KL/V004	Duly Made 20/06/2014	
Variation application operator withdrawn	16/07/2014	Application withdrawn
Variation application EPR/FP3935KL/V005	Duly made 25/07/2014	Application to remove condition 2.1.19 and Schedule 7.
Variation application EPR/FP3935KL/V005 determined	17/10/2014	Conditions 2.1.19 amended, 2.1.20 added, Schedule 7 removed and permit updated in accordance with the IED.
Variation application EPR/FP3935KL/V006	Duly Made 24/02/2015	To add two scheduled waste installation activities to allow the segregation, repackaging and despatch of waste not suitable for incineration.
Variation application EPR/FP3935KL/V006 determined Billing Ref: PP3331WU	14/04/2015	Consolidation
Variation Application EPR/FP3935KL/V007	Duly made 14/02/2018	Application to amend minimum charging temperature and remove/amend outdated/superseded conditions.
Response to Schedule 5 Notice dated 29/03/2018	21/05/2018	Air quality assessment revision
	23/05/2018	Gas trends and site processing availability
	24/05/2018	Confirmation of revised annual tonnage
	25/05/2018	Calculation of uncertainty
Additional information	13/07/2018	Confirmation of ammonia destruction and therefore no measurement.
Response to Schedule 5 Notice dated 23/07/2018	23/07/2018	Air modelling files
	26/07/2018	HF and HCL deposition dispersion assessment information.
Variation determined EPR/FP3935KL (Billing Reference KP3433JW)	01/11/2018	Varied permit issued.
Variation application EPR/FP3935KL/V008	Duly made 04/08/2020	To add 3 waste codes, amend unit for oil to water and permit use of processed fuel oil for start-up

<b>Status log of permit A: EPR/FP3935KL</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Variation application EPR/FP3935KL/V008 determined (PAS billing reference BP3803SJ)	05/11/2020	Varied permit issued
Application EPR/FP3935KL/V009 (Consolidation with EPR/FP3435KW)	Duly made 10/05/2021	Application to consolidate permits EPR/FP3935KL and EPR/FP3435KW, retaining existing conditions, and to vary to surrender permitted activity without land (the incineration of waste in a waste to energy plant, permit reference EPR/FP3435KW). Increase in the permitted limit of sulphur in fuel to 1%.
Consolidation issued. EPR/ FP3935KL (Billing reference: LP3000MM)	08/10/2021	Varied and consolidated permit issued.

<b>Status log of permit B: EPR/FP3435KW</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Transfer application - Issued	17/07/2009	
Agency Variation EPR/FP3435KW/V002 - Issued	18/09/2009	
Agency Variation EPR/FP3435KW/V003 - Issued	03/12/2009	
Administrative variation EPR/FP3435KW/V004 - Received	24/02/2010	
Administrative variation EPR/FP3435KW/V004 - Issued	24/03/2010	
Notified of change of registered office address	06/02/2015	Registered office address changed to Atlas House, Third Avenue, Globe Park, Marlow, and Buckinghamshire, SL7 1EY.
Variation issued EPR/FP3435KW/V005	16/02/2015	Varied permit issued to Tradebe Fawley Limited
Application EPR/FP3435KW/V007 (variation and consolidation with EPR/FP3935KL)	Duly made 10/05/2021	Application to consolidate permits EPR/FP3935KL and EPR/FP3435KW, retaining existing conditions, and to vary to surrender permitted activity without land (the incineration of waste in a waste to energy plant, permit reference EPR/FP3435KW).
Variation determined and consolidation issued. EPR/ FP3935KL	08/10/2021	Varied and consolidated permit issued.

End of introductory note

# Notice of variation and consolidation

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

The Environment Agency in exercise of its powers under regulations 18 and 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates environmental permits

### Permit numbers

EPR/FP3935KL  
EPR/FP3435KW

### Issued to

**Tradebe Fawley Limited** (“the operator”)

whose registered office is

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

company registration number 02786680

to operate a regulated facility at

**Fawley High Temperature Incinerator  
Charlston Road  
Hardley  
Hythe  
Southampton  
SO45 3NX**

to the extent set out in the schedules.

The notice shall take effect from 08/10/2021

**The number of the consolidated permit is EPR/FP3935KL**

Name	Date
Samantha Haddock	08/10/2021

Authorised on behalf of the Environment Agency

## Schedule 1 – changes in the permit

**Note:** The conditions numbers used in this schedule refer to those in the consolidated permit.

Conditions 1.1.1, 1.2, 1.4.1 and 2.2.7.1 have been varied in the consolidated permit as a result of the application made by the operator.

1. With reference to condition 1.1.1, the Energy from Waste activity which was permitted under Section 5.1 A(1)(a) on permit EPR/FP3435KW is deleted from the consolidated Table 1.1.1 (activities). The consolidated Table 1.1.1 is therefore amended as shown below:

<b>Table 1.1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity and waste types</b>
A1	Section 5.1 Part A(1)(a) : The incineration of hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 10 tonnes per day.	Incineration of hazardous waste in an incineration plant.	Receipt of waste, through storage, pre-treatment, waste fuel and air supply systems, on-site facilities for the treatment or storage of residues and waste water, stack devices and systems for controlling incineration operations, recording and monitoring incineration conditions.  Waste types and quantities as specified in Schedule 6 of this permit.
A2	Section 5.3 Part A(1)(a)(iv): Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1.	Repackaging of waste prior to off-site disposal (D14) or recovery (R3, R4, R5).	Waste types and quantities as specified in Schedule 6 of this permit.
A3	Section 5.6 Part A(1)(a): Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2 and 5.3.	Temporary storage of waste for repackaging prior to off-site disposal (D15) or recovery (R13).	Waste types and quantities as specified in Schedule 6 of this permit.

2. With reference to condition 1.2, a revised site plan is included at Schedule 5.

3. With reference to condition 1.4.1, Table 1.4.1 (improvement programme requirements) is amended to include an additional improvement condition 20, as shown below:

<b>Table 1.4.1 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
20	<p>A written report shall be submitted to the Environment Agency for approval. The report should verify whether the assumptions made in the document 'Environmental Risk Assessment for fuel changes', submitted to the Environment Agency by the operator on 20/07/2021, were correct.</p> <p>The report should include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• a review of 12 months monitoring data (emission points A1 and W1, required by Table S2), identifying any trends, 'spikes' or significant increases in the levels of emissions that are attributable to the change in fuel, together with evidence supporting these conclusions;</li> <li>• the types and quantities of all fuels used in the incinerator during this period;</li> <li>• a review of the monitored aerial emissions in relation to those assessed in air quality assessment 'Air Dispersion Modelling Assessment Report (Non-Radioactive Pollutants', reference 442364/HH/AQ/Rev03, dated May 2018), which was submitted to the Environment Agency on 26/07/2018;</li> <li>• a literature review to verify that the use of residual fuel oil produces carbon savings compared to the use of gasoil (taking into account direct and indirect emissions and any additional fuel required).</li> </ul>	14 months from the commencement of the use of fuel in the incinerator that contains more than 0.1% sulphur by weight.

4. Footnote 'Note 4' to Table 2.2.2 is amended to correct a typographical error in the maximum number of invalid half hours for a daily average to be considered valid. The number is amended from eight to five, as shown below:

Note 4: The Continuous Emission Monitors used shall be such that the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed 10%. 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 this value of the confidence interval (10%). Where it is necessary to calibrate or maintain the monitor and this means that data is not available for a complete half-hour period, the half-hourly average shall nonetheless be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. (The number of half-hourly averages so validated shall not exceed 8 per day). 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 will be considered valid if no more than five half-hourly average values in any day have been determined not to be valid. No more than ten daily average values per year shall be determined not to be valid.

5. With reference to condition 2.2.7.1, Table 2.2.6 (equivalent parameters and technical measures) is amended as shown below:

<b>Table 2.2.6 Equivalent parameters and technical measures</b>	
<b>Parameter or measure</b>	<b>Requirement or description of measure and frequency if relevant</b>
Sulphur content of fuel	Monthly rolling average sulphur content of fuel burned shall not exceed 1% by weight.
Incinerator slag burn-out quality	The permitted installation shall be operated to ensure that the incinerator slag shall have a total organic carbon (TOC) content less than 3%, or a loss on ignition of less than 5% of the dry weight of the slag.

6. Condition 5.1.2 is amended to amended to correct a typographical error to rectify the incorrect reference to Schedule 5; the condition now reads:

5.1.2 Any information provided under condition 5.1.1 (a)(i), or 5.1.1 (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 1 to this permit within the time period specified in that schedule.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.



# Permit

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

### Permit number

**EPR/FP3935KL**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/FP3935KL/V009 authorising,

**Tradebe Fawley Limited** (“the operator”),

whose registered office is

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

company registration number 02786680

to operate an installation at

**Fawley High Temperature Incinerator  
Charlston Road  
Hardley  
Hythe  
Southampton  
SO45 3NX**

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

<b>Name</b>	<b>Date</b>
<b>Samantha Haddock</b>	<b>08/10/2021</b>

Authorised on behalf of the Environment Agency

# Conditions

## 1 General

### 1.1 Permitted activities

1.1.1 The operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

<b>Table 1.1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity and waste types</b>
A1	Section 5.1 Part A(1)(a) : The incineration of hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 10 tonnes per day.	Incineration of hazardous waste in an incineration plant.	Receipt of waste, through storage, pre-treatment, waste fuel and air supply systems, on-site facilities for the treatment or storage of residues and waste water, stack devices and systems for controlling incineration operations, recording and monitoring incineration conditions.  Waste types and quantities as specified in Schedule 6 of this permit.
A2	Section 5.3 Part A(1)(a)(iv): Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1.	Repackaging of waste prior to off-site disposal (D14) or recovery (R3, R4, R5).	Waste types and quantities as specified in Schedule 6 of this permit.
A3	Section 5.6 Part A(1)(a): Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2 and 5.3.	Temporary storage of waste for repackaging prior to off-site disposal (D15) or recovery (R13).	Waste types and quantities as specified in Schedule 6 of this permit.

## 1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the site, being the land shown edged in red on the site plan at Schedule 5 to this permit.

## 1.3 Overarching management condition

- 1.3.1 Without prejudice to the other conditions of this permit, the operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this permit.

## 1.4 Improvement programme

- 1.4.1 The operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
1	The operator shall provide a justification to the Agency for the removal the bulk liquid tanks and replacing them with four smaller storage tanks designed for specific waste types, using the existing bunding infrastructure, as described in the application. This work shall not be undertaken unless the justification has been provided in writing to the Agency and the Agency has agreed in writing that the replacement of these tanks shall take place.	Complete
2	The operator shall investigate the use of lime enriched ash instead of caustic soda for the gas cleaning plant, from the neighbouring MBM plant. A report of this investigation shall be provided in writing to the Agency with recommendations for implementing any changes, if any, with timescales for completing the work. If implemented there shall be subsequent incorporation of disentrainment vessels between the Packed Tower Absorber and the Wet Electrostatic Precipitator to facilitate the use of lime instead of caustic soda. All work shall be completed by the timescales specified.	Complete
3	The operator shall submit a proposal to the 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 PM10, PM2.5 and PM1.0 ranges. 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>Table 1.4.1 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
4	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
5	The operator shall provide to the Agency a report on the improvements required to achieve the emission levels of suspended solids to water which are required from 01/01/2008. The report shall propose a plan and timescale for implementation of the improvements and demonstrate how they represent BAT for the permitted installation.	Complete
6	The operator shall investigate the feasibility of modifying the rotary kiln sealing to reduce the likelihood of fugitive emissions to air and provide a written report to the Agency making recommendations for improving the seals with timescales for implementation. The recommendations of this report shall be implemented within the timescales specified within this report.	Complete
7	The operator shall investigate the feasibility of improving the wet Electrostatic Precipitators wash down system and provide a written report to the Agency with recommendations for improving the wash down system with timescales. The recommendations of this report shall be implemented within the timescales specified within this report.	Complete
8	The operator shall undertake an energy audit including a review of energy efficiency measures within site buildings. A copy of this report shall be provided in writing to the Agency. As a minimum this report shall identify energy efficiency measures that will be implemented with appropriate timescales for implementation. All recommendations in this report shall be implemented within the timescales suggested.	Complete
9	The operator shall provide the Agency with a report assessing the technologies for additional heat recovery. As a minimum this report shall identify the technologies available and make recommendations as to whether this technology shall be used on site with appropriate timescales for installation. All recommendations in this report shall be implemented within the timescales suggested.	Complete
10	The operator shall compare existing waste pre-acceptance and acceptance procedures against recommendations specified in Environment Agency sector guidance note IPPC S5.06, pages 19-32, and submit a report to Agency highlighting any differences from existing procedures and the recommendations. This report shall make recommendations for revising existing waste pre-acceptance and acceptance procedures with a timetable for revising the procedures, if necessary. Changes to these procedures shall be implemented in accordance with the timetable.	Complete

<b>Table 1.4.1 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
11	The operator shall install a turbidity meter in accordance with the response given to the Schedule 4 Notice dated 7/11/2005.	Complete
12	The operator shall agree a "trigger level" related to turbidity readings with the Agency at which effluent discharge shall cease	Complete
13	The operator shall submit a report specifying a monitoring methodology for suspended solids. Monitoring for this parameter shall be undertaken after this date in accordance with the frequency specified in this permit.	Complete
14	The operator shall develop an odour management plan, having regard to Environment Agency Horizontal Guidance H4. The plan shall as a minimum identify all potential sources of odour and options available to reduce or eliminate odour emissions from the installation. A summary report shall be submitted in writing to the Agency, along with a timetable for the implementation of improvements identified.	Complete
15	The operator shall develop a procedure for replacing the carbon filters used to reduce emissions from waste and fuel tanks during plant shut down. This procedure shall consider, as a minimum, at what frequency the filters shall be replaced and where they shall be disposed of/ recycled.	Complete
16	The operator shall undertake an assessment to determine the most appropriate technique to reduce NOx levels on the site and provide a written report of this assessment and its conclusions to the Agency	Complete
17	All hard-standing and bunded storage areas shall be repaired/ refurbished, where necessary, so that all bunded areas are capable of containing 110% capacity of the largest tank contained within the bund and shall be impermeable to the materials contained therein. Hardstanding areas shall be repaired/ refurbished so that they are impermeable to any chemical that may be stored on it. All bunds shall be rendered or treated so that they are resistant to the material that they contain.	Complete
18	The operator shall review the continuous emissions monitoring arrangements with the view to moving from the demonstration of compliance with the 97%ile half hourly average emission limits included within this permit, to demonstrating 100% compliance with half hourly average emission limit values in column A of Annex V of the Waste Incineration Directive. A written summary report of the review shall be submitted to the Environment Agency detailing the improvements identified and a timetable for their implementation. As a minimum this timetable shall include replacement of end of life equipment / monitors with equipment / monitors that can achieve the requirements of this permit and demonstration of compliance with the 100% emission limit value identified in Column A of Annex V of the Waste Incineration Directive.	Complete

<b>Table 1.4.1 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
19	The operator shall provide the Agency with a written report detailing how the operator intends to meet the emissions levels for the parameters in Tables 2.2.4 and 2.2.4 (a) that must be achieved by the 31/12/2007	Complete
20	<p>A written report shall be submitted to the Environment Agency for approval. The report should verify whether the assumptions made in the document 'Environmental Risk Assessment for fuel changes', submitted to the Environment Agency by the operator on 20/07/2021, were correct.</p> <p>The report should include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• a review of 12 months monitoring data (emission points A1 and W1, required by Table S2), identifying any trends, 'spikes' or significant increases in the levels of emissions that are attributable to the change in fuel, together with evidence supporting these conclusions;</li> <li>• the types and quantities of all fuels used in the incinerator during this period;</li> <li>• a review of the monitored aerial emissions in relation to those assessed in air quality assessment 'Air Dispersion Modelling Assessment Report (Non-Radioactive Pollutants', reference 442364/HH/AQ/Rev03, dated May 2018), which was submitted to the Environment Agency on 26/07/2018;</li> <li>• a literature review to verify that the use of residual fuel oil produces carbon savings compared to the use of gasoil (taking into account direct and indirect emissions and any additional fuel required).</li> </ul>	14 months from the commencement of the use of fuel in the incinerator that contains more than 0.1% sulphur by weight.

1.4.2 Where the operator fails to comply with any requirement by the date specified in Table 1.4.1 the operator shall send written notification of such failure to the Agency within 14 days of such date.

## 1.5 Minor operational changes

1.5.1 The operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the permitted installation; any relevant supporting assessments and drawings; and the proposed implementation date.

1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the operator shall operate the permitted installation in accordance with that change, and relevant provisions in the application shall be deemed to be amended.

1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this permit, the operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.

1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the operator shall operate the permitted installation using that method or technique, and relevant provisions in the application and the Site Protection and Monitoring Programme, as the case may be shall be deemed to be amended.

## 1.6 Pre-operational conditions

1.6.1 There are no pre-operational conditions.

## 1.7 Off-site conditions

1.7.1 There are no off-site conditions.

# 2 Operating conditions

## 2.1 In-process controls

2.1.1 The permitted installation shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this permit.

<b>Table 2.1.1 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to questions 2.1, 2.2 and 2.10 and given in pages 221- 228 of the application	31/05/2005
Response to Schedule 4 Notice	The response to questions 1,3,4,6,7, 11-18, 25, 28-35, 38, 41-43, 45 and 49	22/11/2005 and 01/12/2005
Response to e-mail dated 8/12/2005	Entire e-mail	9/12/2005
Variation application EPR/FP3935KL/V003	Response to 'Section 3 – Operating Techniques' Part C3 of the application form, (EPC3) Supporting Drawing PD5/000/4767 (document EAV CD 10 5) Supporting Risk Assessment (document EAV CD 10 06) Supporting document 'Detailed Summary of Changes' – Cooling Tower change over (document EAV CD 10 1)	23/06/2011  23/06/2011 28/07/2011 12/08/2011
Variation application EPR/FP3935KL/V005	Response to 'Section 3 – Operating Techniques' Part C3 of the application form, (EPC3) Responses to 'Appendix 6 – Specific Questions for the waste incineration sector' Part CS of the application form, (EPC3) Supporting document 'Justification for the addition of 15 new EWC codes to the Tradebe Fawley HTI permit'	25/07/2014

<b>Table 2.1.1 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Variation application EPR/FP3935KL/V006	Response to 'Section 3 – Operating Techniques' Part C3 of the application form	24/02/2015
Variation application EPR/FP3935KL/V007	Environmental risk assessment for site ref Fawley ERA 05/02/2018 Environmental Risk assessment for Hg Fawley abatement plant 05/02/2018	05/02/2018
	Revised inventory table of tank farm (S4T1) Waste Disposal and Recovery Table(S4T2) submitted in line with condition 2.6.2	14/02/2018
Additional information	Confirmation of ammonia destruction and therefore no measurement	13/07/2018
Response to Schedule 5 Notice dated 29/03/2018	Confirmation of how the operator will achieve the revised annual tonnage at 48,000 tonnes per annum at an availability of 93% to achieve 5.9 tonnes per hour	24/05/2018

- 2.1.2 The permitted installation shall, subject to the other conditions of this permit, be operated using the techniques and in the manner described in the Site Protection and Monitoring Programme submitted under condition 4.1.8 of this permit or as otherwise agreed in writing by the Agency.
- 2.1.3 Without prejudice to other conditions of this permit only the wastes specified in Schedule 6 shall be incinerated in the permitted installation subject to the limitations in quantities not exceeding those specified for the waste types specified in Table 2.1.2.
- 2.1.4 The operator shall incinerate only those hazardous wastes where the throughputs, calorific values and pollutant composition are within the ranges specified in the application.
- 2.1.5 The operator shall ensure that prior to accepting waste subject to condition 2.1.4 at the permitted installation, it has obtained sufficient information about the hazardous wastes to be burned to demonstrate compliance with the characteristics described in condition 2.1.4.

<b>Table 2.1.2 Permitted waste types</b>		
<b>Waste type</b>	<b>Limitations</b>	<b>Maximum throughput</b>
Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from wood processing and the production of panels	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit.	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.



<b>Table 2.1.2 Permitted waste types</b>		
<b>Waste type</b>	<b>Limitations</b>	<b>Maximum throughput</b>
and furniture, pulp, paper and cardboard		
Wastes from the leather, fur and textile industries	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from inorganic chemical processes	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from organic chemical processes	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from the photographic industry	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from thermal processes	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from shaping and physical and mechanical surface treatment of metals and plastics	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Oil wastes and wastes of liquid fuels (except edible oils, 05 and 12)	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Waste organic solvents, refrigerants and propellants (except 07 and 08)	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes not otherwise specified in the list	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.

<b>Table 2.1.2 Permitted waste types</b>		
<b>Waste type</b>	<b>Limitations</b>	<b>Maximum throughput</b>
Construction and demolition wastes (including excavated soil from contaminated sites)	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
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	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.
Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	As identified in Schedule 6, but subject to conditions 2.1.14 and 2.1.15 of this permit	Combined total with other wastes in this table shall not exceed 48,000 tonnes per annum.

- 2.1.6 The operator shall take representative samples of all hazardous waste deliveries to the permitted installation unless otherwise agreed in writing with Agency and test a representative selection of these samples to verify conformity with the information obtained as required by condition 2.1.5. These samples shall be retained for inspection by the Agency for a period of at least one month after the material is incinerated.
- 2.1.7 Waste shall not be charged, or shall cease to be charged, into the incinerator if:
- (a) the combustion chamber temperature is below, or falls below, a temperature of 900°C (or 1000°C if the hazardous waste contains more than 1% of halogenated organic substances); or
  - (b) any continuous emission limit value in Table 2.2.2(a) is exceeded; or
  - (c) any continuous emission limit value in Table 2.2.2 is exceeded, other than under abnormal operating conditions; or
  - (d) monitoring results required to demonstrate compliance with any continuous emission limit value in Table 2.2.2 are unavailable other than under abnormal operating conditions.
- 2.1.8 The operator shall operate at least one auxiliary burner at start-up or shut-down or whenever the operating temperature falls below that specified in condition 2.1.7, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.1.7 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.

- 2.1.9 The operator shall record the beginning and end of each period of abnormal operation.
- 2.1.10 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.
- 2.1.11 Where, during abnormal operation, any of the following situations arise, the operator shall, as soon as is practicable, cease the burning of waste until normal operation can be restored:
- continuous measurement shows that an emission exceeds any emission limit value in Table 2.2.2, or continuous emission monitor(s) or continuous effluent monitoring device(s) are out of service, as the case may be, for a total of four hours uninterrupted duration;
  - the cumulative duration of abnormal operation periods over one calendar year exceeds 60 hours on an incineration line;
  - continuous measurement shows that an emission exceeds any emission limit value in Table 2.2.2 (a);
  - the alternative techniques to demonstrate compliance with the abnormal operation emission limit value(s) in Table 2.2.2 (a), as detailed in the application or as agreed in writing with the Agency, are unavailable.
- 2.1.12 The operator shall interpret the end of the period of abnormal operation as the earliest of the following:
- when the failed equipment is repaired and brought back into normal operation;
  - when the operator initiates a shut-down of the waste combustion activity, as described in the application;
  - when a period of 4 hours has elapsed from the start of the abnormal operation;
  - when, in any calendar year, an aggregated period of 60 hours abnormal operation has been reached for a given incineration line.
- 2.1.13 Infectious clinical waste shall 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.
- 2.1.14 Wastes which, in the opinion of the Agency, differ significantly from the normal range of feedstocks previously received and processed on site, shall be referred to the Agency at the Reporting Address and shall be subject to discussion between the operator and the Agency and require the written agreement of the latter. Such wastes are likely to be subject to the requirement for a test burn. Polychlorinated biphenyls shall be taken as new materials, except when present in other wastes at levels less than 500 ppm by weight.

When notifying the Agency, detailed information shall be provided relating to:-

- (a) The nature, composition, packaging, of any such waste;
- (b) The consignment weight or volume;
- (c) The proposed method of sampling and assaying the waste and of holding the waste on site prior to incineration;
- (d) The proposed method of packaging the waste for incineration, the maximum size of any package of the waste to be delivered to the incinerator together with the maximum proposed frequency of the charging of such packages to the incinerator, or, alternatively, in the case of bulk liquid wastes or drummed hazardous wastes, the maximum proposed continuous feed rate to the incinerator; and

- (e) The ability of the incineration system and the gas and liquid effluent treatment systems to process such waste in a manner, which fully accords with conditions given elsewhere in this permit. Proposals for a test burn programme shall be included.
  - (f) No such wastes shall be processed in the incineration system without written agreement from the Agency.
- 2.1.15 The following wastes and waste type shall only be incinerated subject to the conditions listed below:
- (a) The feed to the incinerator shall not consist of more than 22% halogens of which no more than 35kgs/hr should consist of bromine. Iodated waste may only be processed at a rate less than 4kg/hr for liquid wastes or 4kg per solid batch. Any increases above this rate shall be subject to satisfactory performance at a level agreed in writing with the Agency and shall be subjected to a comprehensive incineration trial.
  - (b) Quantities of carcinogenic substances listed under item 1 of Schedule 2 of the Control of Substances Hazardous to Health Regulations 2002 (Statutory Instrument 2002 No.2677) greater than 1 kilogram shall first be notified to the Agency and then subjected to an incineration trial.
  - (c) Cresol lights for the manufacture of para chloro ortho cresol shall only be processed if subject to a storage and incineration trial agreed in writing with the Agency.
- 2.1.16 Feed rates of all wastes shall be measured and recorded.
- 2.1.17 A stand-by emergency generator shall be made available and used that will allow controlled burn off of wastes or controlled shut-down if there is insufficient power in the event of a power failure in the kiln until full power is restored or a controlled shut down completed.
- 2.1.18 The full essential (emergency) shut down system fitted to the incineration system shall only be tested during a plant start-up period, prior to the addition of any waste to the incineration system or as otherwise agreed in writing by the Agency.
- 2.1.19 Without prejudice to 2.1.8 and provided the temperature specified in condition 2.1.7 is maintained in the combustion chamber, pumpable liquid wastes with a calorific value of > 21MJ/kg may be used in the auxiliary burner.
- 2.1.20 The operator shall record the waste code, calorific value and the quantity of each waste used under condition 2.1.19.

## **2.2 Emissions**

### **2.2.1 Emissions to air, (including heat, but excluding odour, noise or vibration) from specified points**

- 2.2.1.1 This part 2.2.1 of this permit shall not apply to releases of odour, noise or vibration.
- 2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the source(s) specified in that Table.

<b>Emission point reference or description</b>	<b>Source</b>	<b>Location of emission point</b>
A1	37.5m flue dedicated to Hazardous Waste Incinerator following conditioning with a preheated stream of air	A1 on drawing ASR 5 submitted with the application ZP3632SR
A2	37.5m flue dedicated to Emergency vent	A2 on drawing ASR 5 submitted with the application ZP3632SR
A3	11.5 m vent pipe from Waste Anhydrous Ammonia System Purge Pot	A3 on drawing ASR 5 submitted with the application ZP3632SR
A4	4m stack on mobile scrubber	Within installation

2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded except during a period of abnormal operation. During a period of abnormal operation, the limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 (a) shall not be exceeded.

<b>Emission point ref. &amp; location</b>	<b>Source [Refer to table S2.2.1]</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period<sup>1</sup></b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1	-	Particulate matter	30 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181 <sup>6 8</sup>
A1	-	Particulate matter	10 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181 <sup>6 8</sup>
A1	-	Particulate matter	30 mg/m <sup>3</sup>	periodic over minimum 1-hour period	Bi-annual	BS EN 13284-1 <sup>11</sup>
A1	-	Total Organic Carbon (TOC)	20 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181 <sup>6 8</sup>
A1	-	Total Organic Carbon (TOC)	10 mg/m <sup>3</sup>	daily average	Continuous measurement	BS EN 14181 <sup>6 8</sup>
A1	-	Total Organic Carbon (TOC)	20 mg/m <sup>3</sup>	periodic over minimum	Bi-annual	BS EN 12619

Table 2.2.2 Emission limits to air and monitoring during normal operation						
Emission point ref. & location	Source [Refer to table S2.2.1]	Parameter	Limit (including unit)	Reference period <sup>1</sup>	Monitoring frequency	Monitoring standard or method
				1-hour period		
A1	-	Hydrogen chloride (HCl)	60 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS 14181 <sup>7 9</sup>
A1	-	Hydrogen chloride (HCl)	10 mg/m <sup>3</sup>	daily average	Continuous measurement	BS 14181 <sup>7 9</sup>
A1	-	Hydrogen chloride (HCl)	60 mg/m <sup>3</sup>	periodic over minimum 1-hour period	Bi-annual	BS EN 1911 <sup>11</sup>
A1	-	Hydrogen fluoride (HF)	1 mg/m <sup>3</sup>	periodic over minimum 1-hour period	Bi-annual	BS ISO 15713 <sup>11</sup>
A1	-	Carbon monoxide (CO)	150 mg/m <sup>3</sup>	10 minute average <sup>10</sup>	Continuous measurement	BS 14181 <sup>4 8</sup>
A1	-	Carbon monoxide (CO)	50 mg/m <sup>3</sup>	daily average	Continuous measurement	BS 14181 <sup>4 8</sup>
A1	-	Carbon monoxide (CO)	100 mg/m <sup>3</sup>	periodic over minimum 4 hour period, data to be reported as ½-hour averages	Bi-annual	BS EN 15058 <sup>11</sup>
A1	-	Sulphur dioxide (SO <sub>2</sub> )	200 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS 14181 <sup>5 8</sup>
A1	-	Sulphur dioxide (SO <sub>2</sub> )	50 mg/m <sup>3</sup>	daily average	Continuous measurement	BS 14181 <sup>5 8</sup>
A1	-	Sulphur dioxide (SO <sub>2</sub> )	200 mg/m <sup>3</sup>	periodic over minimum 4 hour period, data to be	Bi-annual	BS 14791 <sup>11</sup>

Table 2.2.2 Emission limits to air and monitoring during normal operation						
Emission point ref. & location	Source [Refer to table S2.2.1]	Parameter	Limit (including unit)	Reference period <sup>1</sup>	Monitoring frequency	Monitoring standard or method
				reported as ½ hour averages		
A1	-	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	350 mg/m <sup>3</sup>	daily average	Continuous measurement	BS 14181 <sup>5 8</sup>
A1	-	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	400 mg/m <sup>3</sup>	½-hr average (after 1st January 2007)	Continuous measurement	BS14181 <sup>5 8</sup>
A1	-	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	350 mg/m <sup>3</sup>	periodic over minimum 4 hour period, data to be reported as ½ hour averages	Bi-annual	BS EN 14792 <sup>11</sup>
A1	-	Cadmium & thallium and their compounds (total) <sup>2</sup>	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 <sup>2</sup>	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) <sup>2</sup>	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)	0.1 ng/m <sup>3</sup>	periodic over minimum 6 hours,	Bi-annual	BS EN 1948 Parts 1, 2 and 3

<b>Emission point ref. &amp; location</b>	<b>Source [Refer to table S2.2.1]</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period<sup>1</sup></b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
				maximum 8 hour period <sup>3</sup>		

Note 1: See Section 6 for reference conditions

Note 2: Metals include gaseous, vapour and solid phases as well as their compounds (expressed as the metal or the sum of the metals as specified). Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V mean antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium respectively.

Note 3: The I-TEQ sum of the equivalence factors 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.

Note 4: The Continuous Emission Monitors used shall be such that the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed 10%. 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 this value of the confidence interval (10%). Where it is necessary to calibrate or maintain the monitor and this means that data is not available for a complete half-hour period, the half-hourly average shall nonetheless be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. (The number of half-hourly averages so validated shall not exceed 8 per day). 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 will be considered valid if no more than five half-hourly average values in any day have been determined not to be valid. No more than ten daily average values per year shall be determined not to be valid.

Note 5: As Note 4, except that the value of the confidence interval is 20% in place of 10%.

Note 6: As Note 4, except that the value of the confidence interval is 30% in place of 10%.

Note 7: As Note 4, except that the value of the confidence interval is 40% in place of 10%.

Note 8: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

Note 9: The certification range for MCERTS equipment should be 1.5 times the daily emission limit value. The CEM shall also be able to measure instantaneous values over the ranges that 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.

Note 10: 5% of all measurements in a year determined as a 10 minute average shall not exceed the emission limit value.

Note 11: Alternative methods and standards, specified within TGN M2, may be agreed in writing with the Agency if justified)

<b>Emission point ref. &amp; location</b>	<b>Source [Refer to table S2.2.1]</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period<sup>1</sup></b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1	-	Particulate matter	150 g/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181 <sup>4 2</sup> during abatement plant failure or alternative surrogate using duplicate CEMs specified in the application during failure of the
A2						



Table 2.2.2 (a) Emission limits to air and monitoring during abnormal operating conditions						
Emission point ref. & location	Source [Refer to table S2.2.1]	Parameter	Limit (including unit)	Reference period <sup>1</sup>	Monitoring frequency	Monitoring standard or method
						continuous emission monitor
A1	-	Total Organic Carbon (TOC)	20 mg/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181 <sup>4 2</sup> during abatement plant failure or alternative surrogate using duplicate CEMs specified in the application during failure of the continuous emission monitor
A2						
A1	-	Carbon monoxide (CO)	100 g/m <sup>3</sup>	½-hr average	Continuous measurement	BS EN 14181 <sup>4 3</sup> during abatement plant failure or alternative surrogate using duplicate CEMs specified in the application during failure of the continuous emission monitor
A2						

Note 1: See Section 6 for reference conditions

Note 2: The Continuous Emission Monitors used shall be such that the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed 30%. Valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted this value of the confidence interval (30%). Where it is necessary to calibrate or maintain the monitor and this means that data is not available for a complete half-hour period, the half-hourly average shall nonetheless be considered valid if measurements are available for a minimum of 20 minutes during the half-hour period. (The number of half-hourly averages so validated shall not exceed 8 per day).

Note 3: As Note 2, except that the value of the confidence interval is 10% in place of 30%.

Note 4: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

2.2.1.4 No condition applies.

2.2.1.5 The operation of the incineration system and the gas treatment plant shall ensure that the concentration of free bromine or free iodine in the stack gases does not give rise to stack gas plume colouration attributable to the presence of these substances.

2.2.1.6 The operator shall have in place for the mobile scrubber referred to in Table 2.2.1 appropriate procedures to ensure:

2.2.1.1 the scrubber extraction fan cannot be operated without the recirculation pump in operation.

2.2.1.2 the scrubbing medium remains at sufficient strength whilst in use.

## 2.2.2 Emissions to water (other than groundwater), including heat, from specified points

2.2.2.1 This part 2.2.2 of this permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

2.2.2.2 Conditions 2.2.2.3 - 2.2.2.6 shall not apply to emissions to sewer.

2.2.2.3 Emissions to water from the emission point(s) specified in Table 2.2.3 shall only arise from the source(s) specified in that table.

<b>Table 2.2.3 Emission points to water</b>		
<b>Emission point reference or description</b>	<b>Source</b>	<b>Receiving Water</b>
W1	Release into controlled water from v-notch weir at SU 43282 05789 connected to effluent treatment batch holding tanks.	Southampton Water
W2	Surface water releases into controlled waters at the weighbridge at SU 4344 05753 from the land and premises not identified as suspect or contaminated.  Blowdown from the water softening plant, subject to testing in accordance with condition 2.2.2.13	Southampton Water

2.2.2.4 The limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 2.2.4 and 2.2.4 (a) shall not be exceeded.

2.2.2.5 Where a substance is specified in Table 2.2.4 and 2.2.4 (a) but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.

<b>Table 2.2.4 Emission limits to water</b>	
<b>Release Point</b>	<b>W1</b>
<b>Substance</b>	<b>Maximum concentration µg/l (except where otherwise specified) <sup>2</sup></b>
Cadmium and its compounds as Cd	12.5
Mercury and its compounds as Hg	2
Chromium and its compounds as Cr	40
Copper and its compounds as Cu	275
Nickel and its compounds as Ni	100
Lead and its compounds as Pb	200

<b>Table 2.2.4 Emission limits to water</b>	
<b>Release Point</b>	<b>W1</b>
<b>Substance</b>	<b>Maximum concentration µg/l (except where otherwise specified) <sup>2</sup></b>
Zinc and its compounds as Zn	150
Aluminium and its compounds as Al	375
Iron and its compounds as Fe	1,500
Arsenic and its compounds expressed as As	100
Total Ammoniacal N	11,000
Phosphate as P	15,250
Suspended solids	45 mg/l
Suspended solids after 01/01/2008	30 mg/l (95%) of all measured values of flow proportional samples taken over 1 year.
pH range	6.0-9.5
Temperature	35 °C
Flow rate	60 m <sup>3</sup> /hour and 4750 m <sup>3</sup> /week
Total Cyanide as CN	30
Total Phenols <sup>1</sup>	10
Fluoride	2,500 mg/l
Chemical Oxygen Demand	160 mg/l
BOD	60 mg/l
Oil Content	7 mg/l
Turbidity	15 Nephelometric Turbidity Units

Note 1: Definition of phenol to be agreed in writing with the Environment Agency.

Note 2: The emission limit values refer to the monthly composite sample concentration unless otherwise specified.

<b>Table 2.2.4 (a) Emission limits to water</b>	
<b>Release Point</b>	<b>W1</b>
<b>Substance</b>	<b>Maximum concentration µg/l (except where otherwise specified) <sup>2</sup></b>
1,2-Dichloroethane	5
Aldrin	0.01
Atrazine	0.06
Azinphos-methyl	0.01
Dichlorvos	0.2
Dieldrin	0.01
Endosulfan	0.03
Endrin	0.005

<b>Table 2.2.4 (a) Emission limits to water</b>	
<b>Release Point</b>	<b>W1</b>
<b>Substance</b>	<b>Maximum concentration µg/l (except where otherwise specified) <sup>2</sup></b>
Fenitrothion	0.08
Hexachlorobenzene	0.03
Hexachlorobutadiene	0.06
Hexachlorocyclohexane (All isomers)	0.02
Malathion	0.08
PCBs (Polychlorinated biphenyls)	0.7
Pentachlorophenol and its compounds	0.7
Simazine	0.06
DDT (All isomers)	0.025
Tributyltin and triphenyl tin taken together	0.002
Trichlorobenzene (all isomers)	0.2
Trifluralin	0.1
Azinphos-ethyl	0.01
Carbon tetrachloride	12
Chloroform	12
Tetrachloroethylene	10
Isodrin	0.005
1,1,1 trichloroethane	40
Trichloroethylene	10
Dioxins and Dibenzofurans expressed as I-TEQ	0.14 ng/l
Dioxins / furans (WHO-TEQ Humans / Mammals) <sup>1</sup>	-
Dioxins / furans (WHO-TEQ Fish) <sup>1</sup>	-
Dioxins / furans (WHO-TEQ Birds) <sup>1</sup>	-

Note 1: The TEQ sum of the equivalence factors 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.

Note 2: The emission limit values refer to the monthly composite sample concentration unless otherwise specified.

2.2.2.6 Emissions to water shall be monitored by the methods specified in Table 2.2.5 unless otherwise agreed in writing. Where a parameter specified in either Table 2.2.4 or 2.2.4 (a) is not included in Table 2.2.5 the monitoring method shall be agreed in writing with the Agency within three months of the date of issue of this permit with the exception of suspended solids.

<b>Table 2.2.5 Emission to water monitoring requirements</b>		
<b>Parameter</b>	<b>Monitoring type/frequency</b>	<b>Method specification reference</b>
pH	Continuous 24 hourly ( for weekly composite)	BS ISO 10523
Temperature	Continuous 24 hourly ( for weekly composite)	Traceable to a national standard p110 sector guidance note
Flow	Continuous 24 hourly ( for weekly composite)	MCERTS
Total suspended solids (as defined by 91/271/EEC) <sup>1</sup>	24 hourly ( for weekly composite)	BS EN 872
Mercury and its compounds, expressed as mercury (Hg)	24 hourly ( for weekly composite)	BS 6068-2.89
Cadmium and its compounds, expressed as cadmium (Cd)	24 hourly ( for weekly composite)	BS 6068-2.89
Thallium and its compounds, expressed as thallium (Tl)	24 hourly ( for weekly composite)	BS 6068-2.89
Arsenic and its compounds, expressed as arsenic (As)	24 hourly ( for weekly composite)	BS 6068-2.60
Lead and its compounds, expressed as lead (Pb)	24 hourly ( for weekly composite)	BS 6068-2.60
Chromium and its compounds, expressed as chromium (Cr)	24 hourly ( for weekly composite)	BS 6068-2.89
Copper and its compounds, expressed as copper (Cu)	24 hourly ( for weekly composite)	BS 6068-2.60
Nickel and its compounds, expressed as nickel (Ni)	24 hourly ( for weekly composite)	BS 6068-2.60
Zinc and its compounds, expressed as zinc (Zn)	24 hourly ( for weekly composite)	BS 6068-2.60

Note 1: Total suspended solids limits apply as 24hr flow proportional samples 95% of values <30 mg/l and 100% < 45 mg/l.

2.2.2.7 The annual volume of water discharged to controlled waters shall not exceed 222,000 m<sup>3</sup>.

2.2.2.8 No condition applies.

2.2.2.9 No condition applies.

- 2.2.2.10 Discharges into controlled waters at release point W1 shall only consist of:
- (a) Trade effluent derived from the incineration of wastes authorised in condition 2.1.3 and Schedule 6 of this permit.
  - (b) Sewage effluent from the effluent treatment plant serving the land and premises, which are the subject of this permit.
  - (c) Surface water from the land and premises, which are the subject of this permit, subject to the conditions specified in Conditions 2.2.2.10 and 2.2.2.11.
- 2.2.2.11 The following conditions apply prior to discharging effluent to controlled waters:
- 2.2.2.11.1 Prior to discharge of a batch treated effluent tank to controlled waters, the tank contents shall be sampled.
  - 2.2.2.11.2 The sample shall be analysed for the substances specified in Table 2.2.4 before discharge.
  - 2.2.2.11.3 The monthly composite sample shall be analysed for total cyanides as CN, total phenols, fluoride, chemical oxygen demand and oil content. A spot sample shall be analysed for BOD once per month.
  - 2.2.2.11.4 The analytical results of every sample, the batch tank reference number and the date each sample was taken shall be recorded in a log and shall, on request, be made available to the Environment Agency.
- 2.2.2.12 Surface run off water defined as contaminated as shown in Drawing PD5/000/4237 shall not be discharged to controlled waters.
- 2.2.2.13 Surface run off water defined as suspect as shown in Drawing PD5/000/4237 shall only be discharged to controlled waters after an assessment, which should include analysis, confirms that none of the determinands are present at a concentration which would exceed the limits specified in Tables 2.2.4 and 2.2.4 (a).
- 2.2.2.14 Recovered low grade water from surface run off water defined as contaminated as shown in Drawing PD5/000/4237 or from aqueous waste received shall not be discharged to controlled waters.

## **Emissions to sewer**

- 2.2.2.15 No emission from the permitted installation shall be made to sewer.

## **2.2.3 Fugitive emissions of substances to air**

- 2.2.3.1 The operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the permitted installation in particular from:

- storage areas
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

## **2.2.4 Fugitive emissions of substances to water and sewer**

2.2.4.1 Subject to condition 2.2.4.2 below, the operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than groundwater) and sewer from the permitted installation in particular from:

- all structures under or over ground
- surfacing
- bunding
- storage areas

provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

2.2.4.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

## **2.2.5 Odour**

2.2.5.1 The operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the permitted installation, in particular by:

- limiting the use of odorous materials, as described in the application
- restricting odorous activities, as described in the application
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

2.2.5.2 The opening of drums containing potentially odorous wastes for examination shall only be carried out in an area, which is provided with exhaust ventilation routed to the incinerator.

2.2.5.3 All emissions to air from the installation shall be free from offensive odour as perceived by an authorised officer of the Agency outside of the installation boundary except that the operator shall not be taken to have breached this condition if the operator has used BAT to prevent, or where that is not practicable, to reduce, such odorous emissions.

## **2.2.6 Emissions to land**

2.2.6.1 This part 2.2.6 of this permit shall not apply to emissions to groundwater.

2.2.6.2 No emission from the permitted installation shall be made to land.

## 2.2.7 Other technical measures

- 2.2.7.1 Where other technical measures of control are used to supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations, the operator shall comply with the requirements specified in Table 2.2.6.

<b>Parameter or measure</b>	<b>Requirement or description of measure and frequency if relevant</b>
Sulphur content of fuel	Monthly rolling average sulphur content of fuel burned shall not exceed 1% by weight.
Incinerator slag burn-out quality	The permitted installation shall be operated to ensure that the incinerator slag shall have a total organic carbon (TOC) content less than 3%, or a loss on ignition of less than 5% of the dry weight of the slag.

## 2.3 Management

- 2.3.1 A copy of this permit and those parts of the application referred to in this permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the permit.

### **Training**

- 2.3.2 The permitted installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this permit.
- 2.3.3 All staff shall be fully conversant with those aspects of the permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.
- 2.3.4 The operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the permitted installation may have an impact on the environment and shall keep records of all relevant training.

### **Maintenance**

- 2.3.5 All plant and equipment used in operating the permitted installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.
- 2.3.6 The operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:
- 2.3.6.1 a written or electronic maintenance programme; and
  - 2.3.6.2 records of its maintenance.

### **Incidents and complaints**

- 2.3.7 The operator shall maintain and implement written procedures for:
- 2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits; and
  - 2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and



2.3.7.3 ensuring that detailed records are made of all such actions and investigations.

2.3.8 The operator shall record and investigate complaints concerning the permitted installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

## **2.4 Efficient use of raw materials**

2.4.1 The operator shall -

2.4.1.1 maintain the raw materials table or description submitted in response to Section 2.4 of the application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;

2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and

2.4.1.3 ensure that incoming water use is directly measured and recorded.

2.4.2 Water Recovery Plant

2.4.1.1 Only those waste types described and meeting the suitability criteria given in the Trial Report Water Recovery Project (dated September 27th 2004) shall be treated in the Water Recovery Plant.

2.4.1.2 Other waste types may only be treated with the written agreement of the Environment Agency.

The operator shall maintain a record of the quantity of each waste type processed, the quantities of low grade water, organic material and solids separated and the eventual fate of these components.

## **2.5 Waste storage and handling**

2.5.1 The operator shall design, maintain and operate all facilities for the storage and handling of waste on the permitted installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.

2.5.2 The operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the permitted installation provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

2.5.3 Any vehicle delivering waste to the site that does not meet the description given in the transfer note or cannot otherwise be accepted, shall be rejected. Wastes which have to be rejected shall be identified and provision made for holding the waste on site in a secured position and in a way that avoids the incorporation of the waste with wastes to be processed by the operator pending the removal of such unacceptable waste deliveries. The Agency, at the reporting address, shall be informed of all unacceptable deliveries. A record of the following information, shall be kept of such deliveries:-

2.5.2.1 The reason why the consignment is unacceptable;

- 2.5.2.2 The date and time that the Agency was informed; and
- 2.5.2.3 The vehicle registration number, driver's name (if given), the name of the carrier, the nature and origin of the waste and the next destination of the waste consignment.
- 2.5.4 Precautions shall be taken to ensure that no waste from the process is carried out of the site on the wheels of vehicles.
- 2.5.5 No waste shall be accepted at the appropriate waste storage area unless there is sufficient storage space within the hardstanding storage area, liquid storage tanks, covered building dedicated to the storage of wastes, stores for radioactive wastes or toxic materials which have to be specially segregated.

## 2.6 Waste recovery or disposal

- 2.6.1 Waste produced at the permitted installation shall be:
  - 2.6.1.1 recovered, to no lesser extent than described in the application; and
  - 2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the application.
- 2.6.2 The operator shall maintain the waste recovery or disposal table or description submitted in response to Section 2.6 of the application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.
- 2.6.3 The operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the permitted installation.
- 2.6.4 The operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin and delivery date of any waste that is received for disposal or recovery at the permitted installation.
- 2.6.5 No condition applies.
- 2.6.6 Wastes produced at the permitted installation shall, as a minimum, be sampled and analysed in accordance with Table 2.6.1. Additional samples shall be taken and tested and appropriate action taken, whenever:
  - disposal or recovery routes change; or
  - it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

<b>Table 2.6.1 Emission limits and monitoring frequency for solid residues</b>				
<b>Emission point ref.</b>	<b>Substance</b>	<b>Limit</b>	<b>Monitoring frequency</b>	<b>Monitoring method</b>
Incinerator Slag	TOC (or)	3%	Monthly	Environment Agency Guidance, 'TGN M4 – Guidelines for Ash Sampling and Analysis' <sup>1</sup>
	LOI	5%		

<sup>1</sup>"or any subsequent amendments to this guidance"

2.6.7 Prior to accepting waste on site, the operator shall have available a description of the waste covering:

2.6.7.1 its physical and as far as practicable, the chemical composition of the waste and all information necessary to evaluate its suitability for the intended incineration process;

2.6.7.2 its hazard characteristics; the hazard characteristic of substances with which it cannot be mixed; and the precautions to be taken in handling the waste.

The operator shall have procedures in place which confirm this information by; checking that the quantity is as declared by the consignor; checking the consignment notes and any locally agreed consignment information documentation; where appropriate, taking representative samples as far as possible before unloading to verify conformity with the description provided and enable the inspector to identify the nature of the wastes treated.

2.6.8 The total number of drums of waste on the site shall not exceed 30,000 or 6,000 tonnes in weight.

2.6.9 Waste caustic streams used as a feedstock for the gas cleaning quench vessel shall be subject to written agreement by the Agency and on any additional monitoring requirements.

## 2.7 Energy efficiency

2.7.1 The operator shall produce a report on the energy consumed at the permitted installation over the previous calendar year, by 31 January each year, providing the information required by condition 4.1.2.

2.7.2 The operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.

2.7.3 The operator shall design, maintain and operate the permitted installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note as from time to time amended. Energy efficiency shall be secured in particular by:

- ensuring that the appropriate operating and maintenance systems are in place;
- ensuring that all plant is adequately insulated to minimise energy loss or gain;
- ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and
- maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

## **2.8 Accident prevention and control**

- 2.8.1 The operator shall maintain and implement when necessary the accident management plan submitted or described in response to Section 2.8 of the application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

## **2.9 Noise and vibration**

- 2.9.1 The operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the permitted installation, in particular by:

- equipment maintenance, e.g. of fans, pumps, motors, conveyors and mobile plant;
- use and maintenance of appropriate attenuation, e.g. silencers, barriers, enclosures;
- timing and location of noisy activities and vehicle movements;
- periodic checking of noise emissions, either qualitatively or quantitatively; and
- maintenance of building fabric,

provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

## **2.10 On-site monitoring**

- 2.10.1 The operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Tables 2.2.2 and 2.2.2 (a), unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.
- 2.10.2 Where continuous emission monitors are installed to comply with the monitoring requirements in Tables 2.2.2 and 2.2.2 (a) the operator shall perform a QAL2 test as specified in BS EN 14181 at least every three years and when there are significant changes to either the process, the fuel used or to the CEMs themselves.
- 2.10.3 Where continuous emission monitors are installed to comply with the monitoring requirements in Tables 2.2.2 and 2.2.2 (a) the operator shall perform an annual surveillance test (AST) at least annually, as specified within BS EN 14181.
- 2.10.3.1 The functioning of the automated monitoring equipment for emissions to water in table 2.2.5 shall be subject to an annual surveillance test. Calibration shall be done by means of parallel measurement with reference measures at least every three years.
- 2.10.4 The operator shall carry out environmental or other specified substance monitoring to the frequencies and methods described in Table 2.10.1

<b>Table 2.10.1 Other monitoring requirements</b>				
<b>Emission point ref. or source, or description of point of measurement</b>	<b>Substance or parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other Specifications</b>
Response to question 43 of Schedule 4 Notice dated 14/11/2005	Wind speed and direction	Continuous	As described in the application	
Sampling Point A1	Temperature of flue gas	Continuous	Traceable to national standards	
Sampling Point A1	pressure	Continuous	Traceable to national standards	
Sampling Point A1	oxygen content	Continuous	BS EN 14181	
Sampling Point A1	Dioxin-like PCBs (WHO-TEQ <sup>1</sup> Humans / Mammals)	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Sampling Point A1	Dioxin-like PCBs (WHO-TEQ <sup>1</sup> Fish)	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Sampling Point A1	Dioxin-like PCBs (WHO-TEQ <sup>1</sup> Birds)	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Sampling Point A1	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in condition 6.1.1	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.	

<b>Table 2.10.1 Other monitoring requirements</b>				
<b>Emission point ref. or source, or description of point of measurement</b>	<b>Substance or parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other Specifications</b>
Sampling Point A1	Dioxins / furans (WHO-TEQ Humans / Mammals) <sup>1</sup>	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Sampling Point A1	Dioxins / furans (WHO-TEQ Fish) <sup>1</sup>	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Sampling Point A1	Dioxins / furans (WHO-TEQ Birds) <sup>1</sup>	Bi-annual periodic measurement, average value over sample period of between 6 and 8 hours.	BS EN/TS 1948-4	
Incinerator Slag	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
Incinerator Slag	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	Sampling and analysis as per Environment Agency ash sampling protocol.	
Filter Cake residues	Metals (Antimony, Cadmium, Thallium,	Quarterly	Sampling and analysis as per	

<b>Table 2.10.1 Other monitoring requirements</b>				
<b>Emission point ref. or source, or description of point of measurement</b>	<b>Substance or parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other Specifications</b>
	Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs and Loss on Ignition.		Environment Agency ash sampling protocol.	
Filter Cake 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	Sampling and analysis as per Agency ash sampling protocol.	
Other solid residues Furnace brick work - contaminated by combustion products	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Before disposal	Sampling and analysis as per Environment Agency ash sampling protocol.	
Other solid residues Furnace brick work - contaminated by combustion products	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	Sampling and analysis as per Environment Agency ash sampling protocol.	
Close to the Combustion Chamber inner wall in the locations detailed in application	Temperature (°C)	Continuous	Traceable to National Standards	

<b>Table 2.10.1 Other monitoring requirements</b>				
<b>Emission point ref. or source, or description of point of measurement</b>	<b>Substance or parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other Specifications</b>
W1	Dioxins / furans (WHO-TEQ Humans / Mammals) <sup>1</sup>	Bi-annual periodic measurement 24-hour flow proportional sample or spot sample	BS ISO 18073	
W1	Dioxins / furans (WHO-TEQ Fish) <sup>1</sup>	Bi-annual periodic measurement 24-hour flow proportional sample or spot sample	BS ISO 18073	
W1	Dioxins / furans (WHO-TEQ Birds) <sup>1</sup>	Bi-annual periodic measurement 24-hour flow proportional sample or spot sample	BS ISO 18073	
W1	Dioxins and Furans (I-TEQ)	Bi-annual periodic measurement 24-hour flow proportional sample or spot sample	BS ISO 18073	

Note 1: The TEQ sum of the equivalence factors 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.

- 2.10.5 The operator shall carry out monitoring of the process variables listed in Table 2.10.1 to the frequencies and methods described in that table.
- 2.10.6 No condition applies.
- 2.10.7 The operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.
- 2.10.8 The operator shall maintain records of all monitoring taken or carried out (this includes 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.
- 2.10.9 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in conditions 2.2.2.6 and 2.10.1 of this permit and the environmental or



other monitoring specified in condition 2.10.4 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing. 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 Table 2.2.2. 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.

2.10.10 There shall be provided:

2.10.10.1 safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this permit, unless otherwise specified in that schedule; and

2.10.10.2 safe means of access to other sampling/monitoring points when required by the Agency.

2.10.11 The operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.8, unless otherwise agreed in writing by the Agency.

2.10.12 The operator shall, within 6 months of the issue of this permit, in accordance with and using the format given in the Land Protection Guidance:

2.10.12.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.8, and

2.10.12.2 report that site reference data to the Agency, unless otherwise agreed in writing by the Agency.

2.10.13 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.

## **2.11 Closure and Decommissioning**

2.11.1 The operator shall maintain and operate the permitted installation so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by:-

2.11.1.1 attention to the design of new plant or equipment;

2.11.1.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and

2.11.1.3 the maintenance of a site closure plan to demonstrate that the installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.

2.11.2 Notwithstanding condition 2.11.1 of this permit, the operator shall carry out a full review of the Site Closure Plan at least every 4 years.

2.11.3 The site closure plan shall be implemented on final cessation or decommissioning of the permitted activities or part thereof.

2.11.4 The operator shall give at least 30 days written notice to the Agency before implementing the site closure plan.

## 2.12 Multiple operator installations

2.12.1 This is not a multi-operator installation.

## 2.13 Transfer to effluent treatment plant

2.13.1 Transfers to effluent treatment plant(s) shall occur only from the point(s) specified in Table 2.13.1 and transfers from those points shall arise only from the source(s) and shall be released only to the treatment plant(s) specified in that table.

<b>Transfer point description or identifier</b>	<b>Source</b>	<b>Effluent Treatment Plant</b>
E1	Effluent from the sumps of the Quench Tower, packed tower absorber, and the electrostatic precipitators (page 6 of ASR), effluent from the de-slagger and transfer from the MBM and cooling plant, and discharge from the Hg abatement plant	Effluent treatment area marked on plan ASR4

2.13.2 No condition applies.

## 3 Records

3.1.1 The operator shall ensure that all records required to be made by this permit and any other records made by it in relation to the operation of the permitted installation shall:-

- 3.1.1 be made available for inspection by the Agency at any reasonable time;
- 3.1.2 be supplied to the Agency on demand and without charge;
- 3.1.3 be legible;
- 3.1.4 be made as soon as reasonably practicable;
- 3.1.5 indicate any amendments which have been made and shall include the original record wherever possible;
- 3.1.6 be retained at the permitted installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing; and
- 3.1.7 where they concern the condition of the site of the installation or are related to the implementation of the Site Protection and Monitoring Programme, be kept at the permitted installation, or other location agreed by the Agency in writing, until all parts of the permit have been surrendered.

## 4 Reporting

- 4.1.1 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.
- 4.1.2 The operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-
- 4.1.2.1 in respect of the parameters and emission points specified in Table S2 to Schedule 2;
  - 4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
  - 4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and
  - 4.1.2.1 to the Agency within 28 days of the end of the reporting period.
- 4.1.3 The operator shall submit to the Agency a report on the performance of the permitted installation over the previous year, by 31 January each year, providing the information listed in Tables S4.1 and S4.2 of Schedule 4, assessed at any frequency specified therein, and using the form specified in Table S3 to Schedule 3.
- 4.1.4 The operator shall submit an annual performance report on the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency by the 31st January each year. The report shall, as a minimum requirement, give an account of the running of the process and the emissions into air and water compared with the emission standards in the Industrial Emissions Directive, as required by Chapter IV of the Industrial Emissions Directive.
- 4.1.5 The operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.
- 4.1.6 Where the operator has a formal environmental management system applying to the permitted installation which encompasses annual improvement targets the operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.7 The operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the operator, that may provide environmental improvement.
- 4.1.8 The operator shall, within two months of the date of this permit, submit a detailed Site Protection and Monitoring Programme, in accordance with and using the appropriate template format given in the Land Protection Guidance. The operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under this condition, and shall carry out regular reviews of it at a minimum frequency of every 2 years. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.
- 4.1.9 Within one 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.

## 5 Notifications

- 5.1.1 The operator shall
- 5.1.1.1 in the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- 5.1.1.1.1 inform the Environment Agency,
- 5.1.1.1.2 take the measures necessary to limit the environmental consequences of such an incident or accident, and
- 5.1.1.1.3 take the measures necessary to prevent further possible incidents or accidents;
- 5.1.1.2 in the event of a breach of any permit condition, the operator must immediately—
- 5.1.1.2.1 inform the Environment Agency, and
- 5.1.1.2.2 take the measures necessary to ensure that compliance is restored within the shortest possible time;
- 5.1.1.3 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.
- 5.1.2 Any information provided under condition 5.1.1 (a)(i), or 5.1.1 (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 1 to this permit within the time period specified in that schedule.
- 5.1.3 The operator shall give written notification as soon as practicable prior to any of the following:-
- 5.1.3.1 permanent cessation of the operation of part or all of the permitted installation;
- 5.1.3.2 cessation of operation of part or all of the permitted installation for a period likely to exceed 1 year; and
- 5.1.3.3 resumption of the operation of part or all of the permitted installation after a cessation notified under condition 5.1.3.2.
- 5.1.4 The operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the Site which adds to that provided to the Agency as part of the application or to that in the Site Protection and Monitoring Programme submitted under condition 4.1.8 of this permit.
- 5.1.5 The operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:-
- 5.1.5.1 where the operator is a registered company:-
- any change in the operator's trading name, registered name or registered office address;
  - any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary);
  - any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up;
- 5.1.5.2 where the operator is a corporate body other than a registered company:
- any change in the operator's name or address;
  - any steps taken with a view to the dissolution of the operator.

- 5.1.5.3 In any other case: -
- the death of any of the named operators (where the operator consists of more than one named individual);
  - any change in the operator's name(s) or address(es);
  - 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 them being in a partnership, dissolving the partnership.
- 5.1.6 Where the operator has entered into a Climate Change Agreement with the Government, the operator shall notify the Agency within one month of:-
- 5.1.6.1 a decision by the Secretary of State not to re-certify that Agreement.
- 5.1.6.2 a decision by either the operator or the Secretary of State to terminate that agreement.
- 5.1.6.3 any subsequent decision by the Secretary of State to re-certify such an agreement.
- 5.1.7 Where the operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the operator shall notify the Agency within one month of:-
- 5.1.7.1 a decision by the operator to withdraw from or the Secretary of State to terminate that agreement.
- 5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period.
- 5.1.8 The Environment Agency shall be notified, in writing, at the end of each quarter of the nature and quantity of any waste stored on site for a period of greater than 6 months.

## 6 Interpretation

6.1.1 In this permit, the following expressions shall have the following meanings:-

*“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 concentrations in the discharges into air and the purified waste water of the regulated substances may exceed the normal emission limit values.

*“Annual release”* means the total release during any calendar year commencing 1 January.

*“Application”* means the application for this permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any other information formally accepted by the Agency as being part of the application.

*“Authorised Officer”* means any person authorised by the 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:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the permitted installation uses no significant amount of supplied or abstracted water, the precipitation on to the site.

*“BAT”* means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: “available techniques” means “those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator”; “best” means “in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole” and “techniques” “includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.”. In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.

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

*“BOD”* means “Biochemical Oxygen Demand”, which means biochemical oxygen demand measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea”.

*“CEM”* Continuous emission monitor.

*“CEN”* means Comité Européen de Normalisation.

*“Commissioning”* relates to the period after construction has been completed or when a modification has been made to the plant or the raw materials when the permitted installation process is being tested and modified to operate according to its design.

*“Controlled waters”* shall have the same meaning as in Part III of the Water Resources Act 1991.

*“Daily average”* for releases of substances to air means the average of half-hourly averages over a calendar day during normal operation. Where any of abnormal operation, start-up or shut-down occur during the day in such a way that there are less than 43 half-hourly averages recorded during normal operation, no daily average shall be recorded for that day.

*“Dioxin and Furans”* means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.

*“ELV”* means emission limit value.

*“Incinerator Slag”* means the waste deposited from the bottom of the furnace by chain link conveyor as described in section B2.5.1 of the application.

*“Filter Cake”* means waste from the gas/ water treatment as described in section B2.5.1 of the application.

*“Flow rate”* with respect to conditions 2.2.2.4 and 2.2.2.7 means dry weather flows.

*“Fugitive emission”* means an emission to air or water (including sewer) from the permitted installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4, 2.2.2.5, 2.2.2.8 or 2.2.2.9 of this permit.

*“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.

*“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.

*“Land Protection Guidance”* means the version of the Agency guidance note "H7 - Guidance on the Protection of Land under the PPC Regime: Application Site Report and Site Protection and Monitoring Programme", including its appended templates for data reporting, which is current at the time of issue of the permit.

*“LAeq, T”* means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

*“LA90, T”* means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

*“LAFmax”* means the maximum A weighted sound level measurement in dB measured with a fast time weighting.

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

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

*“Monitoring”* includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

*“PAH”* means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2,1-d)thiophene, Benzo[c]phenanthrene,

Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenzo[ah]anthracene, Dibenzo[a,i]pyrene Fluoranthene, Indo[1,2,3-cd]pyrene, Naphthalene.

“PCB” means Polychlorinated Biphenyl. Dioxin-like PCBs are the non-ortho and mono-ortho PCBs listed in condition 6.1.5.

“Permitted installation” means the activities and the limits to those activities described in Table 1.1.1 of this permit.

“PPC Regulations” means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this permit save to the extent they are specifically defined in this permit.

“PM10, PM2.5, PM1.0” mean respectively those particulates which have mean particle diameters of 10, 2.5 and 1.0 microns (µm).

“Prohibited Carcinogen” means substances listed under Schedule 2 of the Control of Substances Hazardous to Health Regulations 1981.

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

“Sewer” means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

“Shutdown” is any period where the plant is being returned to a non-operational state and there is no waste being burned.

“Staff” includes employees, directors or other officers of the operator, and any other person under the operator’s direct or indirect control, including contractors.

“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 to initiate steady-state conditions.

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

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

“Waste oil” has the same meaning as in Directive 75/439/EEC.

“WHO” means the World Health Organisation.

“Year” means calendar year ending 31 December.

6.1.2 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.

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

6.1.3.1 in relation to gases 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 (including waste oil), 6% dry for solid fuels; and/or

6.1.3.2 in relation to gases 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



6.1.3.3 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.

6.1.3.4 Where hazardous wastes are burned in an incineration or co-incineration plant 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 6.1.3.1 – 6.1.3.3 above. In other cases, the measured emissions shall be standardised only for moisture, pressure and temperature.

6.1.4 Where any condition of this permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

6.1.5 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.

<b>TEF schemes for dioxins and furans</b>				
<b>Congener</b>	<b>I-TEF(1990)</b>	<b>WHO-TEF (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	0.0001	-	-
<b>Furans</b>				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.05	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.5	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0001	0.0001	0.0001

<b>TEF schemes for dioxin-like PCBs</b>			
<b>Congener</b>	<b>WHO-TEF (1997/8)</b>		
	<b>Humans / mammals</b>	<b>Fish</b>	<b>Birds</b>
<b>Non-ortho PCBs</b>			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0001	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.01	0.00005	0.001
<b>Mono-ortho PCBs</b>			
2,3,3',4,4'-PeCB (105)	0.0001	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.0005	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.0001	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.0001	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.0005	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.0005	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00001	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.0001	<0.000005	0.00001

# Schedule 1 - 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	
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.	

## **Part C**

Permit Number	
Name of operator	
Location of installation	

For multi-line plants, indicate which line(s) was (were) subject to abnormal operation.	
Time at which abnormal operation commenced	
Time at which abnormal operation ceased	
Duration of this incidence of abnormal operation	
Cumulative abnormal operation duration in current year (at end of present incidence)	
Reasons for abnormal operation	
How did the abnormal operation end? (e.g. plant repaired, reaching maximum permitted duration, initiation of shutdown, etc.)	
Where the abnormal operation was caused by the failure of the particulate, CO or TOC CEM, attach a copy of the alternate monitoring data which was used to demonstrate compliance with the abnormal operation emission limit values.	

Where abatement plant has failed, give the half-hourly average emissions for pollutants of relevance during the abnormal operation in the rows below

Pollutant	1 <sup>st</sup> ½ hour	2 <sup>nd</sup> ½ hour	3 <sup>rd</sup> ½ hour	4 <sup>th</sup> ½ hour	5 <sup>th</sup> ½ hour	6 <sup>th</sup> ½ hour	7 <sup>th</sup> ½ hour	8 <sup>th</sup> ½ hour

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this permit, are listed below.

<b>Table S2 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission Point</b>	<b>Reporting period</b>	<b>Period begins</b>
Sulphur dioxide mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Total Organic Carbon (TOC) mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Oxides of nitrogen mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Gaseous chlorides as HCl mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Gaseous fluorides as HF mg m <sup>-3</sup>	A1	Every 6 months	1st January
Particulate Matter mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Carbon Monoxide mg m <sup>-3</sup>	A1	Every 6 months (periodic) Every month (continuous)	1st January
Cadmium & Thallium and their compounds (total)	A1	Every 6 months	1st January
Mercury and its compounds	A1	Every 6 months	1st January
Antimony, Arsenic, Lead, Chromium, Cobalt, Copper, Manganese, Nickel and Vanadium and their compounds (total)	A1	Every 6 months	1st January
Dioxins / furans (I-TEQ)	A1	Every 6 months	1st January
Dioxins / furans(WHO-TEQ Humans / Mammals)	A1	Every 6 months	1st January
Dioxins / furans (WHO-TEQ Fish)	A1	Every 6 months	1st January
Dioxins / furans (WHO-TEQ Birds)	A1	Every 6 months	1st January
Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	A1	Every 6 months	1st January
Dioxin-like PCBs (WHO-TEQ Fish)	A1	Every 6 months	1st January
Dioxin-like PCBs (WHO-TEQ Birds)	A1	Every 6 months	1st January
Poly-cyclic aromatic hydrocarbons (PAHs)	A1	Every 6 months	1st January
Cadmium and its compounds as Cd	W1	Every 3 months	1st January
Mercury and its compounds as Hg	W1	Every 3 months	1st January
Chromium and its compounds as Cr	W1	Every 3 months	1st January
Copper and its compounds as Cu	W1	Every 3 months	1st January
Nickel and its compounds as Ni	W1	Every 3 months	1st January
Lead and its compounds as Pb	W1	Every 3 months	1st January

<b>Table S2 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission Point</b>	<b>Reporting period</b>	<b>Period begins</b>
Zinc and its compounds as Zn	W1	Every 3 months	1st January
Aluminium and its compounds as Al	W1	Every 3 months	1st January
Iron and its compounds as Fe	W1	Every 3 months	1st January
Arsenic and its compounds expressed as As	W1	Every 3 months	1st January
Thallium and its compounds expressed as Tl	W1	Every 3 months	1st January
Cadmium and thallium and their compounds, expressed as their respective elements taken together	W1	Every 3 months	1st January
Antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel, vanadium, tin and their compounds expressed as their respective elements taken together.	W1	Every 3 months	1st January
Total Ammoniacal N	W1	Every 3 months	1st January
Phosphate as P	W1	Every 3 months	1st January
pH range	W1	Every 3 months	1st January
Temperature	W1	Every 3 months	1st January
Flow rate	W1	Every 3 months	1st January
Total Cyanide as CN	W1	Every 3 months	1st January
Total Phenols	W1	Every 3 months	1st January
Fluoride	W1	Every 3 months	1st January
Chemical Oxygen Demand	W1	Every 3 months	1st January
BOD	W1	Every 3 months	1st January
Oil Content	W1	Every 3 months	1st January
Suspended solids	W1	Every 3 months	1st January
1,2-Dichloroethane	W1	Every 3 months	1st January
Aldrin	W1	Every 6 months	1st January
Atrazine	W1	Every 6 months	1st January
Azinphos-methyl	W1	Every 6 months	1st January
Dichlorvos	W1	Every 6 months	1st January
Dieldrin	W1	Every 6 months	1st January
Endosulfan	W1	Every 6 months	1st January
Endrin	W1	Every 6 months	1st January
Fenitrothion	W1	Every 6 months	1st January
Hexachlorobenzene	W1	Every 6 months	1st January
Hexachlorobutadiene	W1	Every 6 months	1st January
Hexachlorocyclohexane (All isomers)	W1	Every 6 months.	1st January

<b>Table S2 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission Point</b>	<b>Reporting period</b>	<b>Period begins</b>
Malathion	W1	Every 6 months.	1st January
PCBs (Polychlorinated biphenyls)	W1	Every 6 months.	1st January
Pentachlorophenol and its compounds	W1	Every 6 months.	1st January
Simazine	W1	Every 6 months.	1st January
DDT (All isomers)	W1	Every 6 months	1st January
Tributyl tin and triphenyl tin taken together	W1	Every 6 months	1st January
Trichlorobenzene (All isomers)	W1	Every 6 months	1st January
Trifluralin	W1	Every 6 months	1st January
Azinphos-ethyl	W1	Every 6 months	1st January
Carbon tetrachloride	W1	Every 6 months	1st January
Chloroform	W1	Every 6 months	1st January
Fenthion	W1	Every 6 months	1st January
Parathion	W1	Every 6 months	1st January
Parathion-methyl	W1	Every 6 months	1st January
Tetrachloroethylene	W1	Every 6 months.	1st January
Isodrin	W1	Every 6 months.	1st January
1,1,1 trichloroethane	W1	Every 6 months.	1st January
Trichloroethylene	W1	Every 6 months.	1st January
Dioxins and Dibenzofurans expressed as I-TEQ	W1	Every 6 months.	1st January
Dioxins / furans (WHO-TEQ Humans / Mammals)	W1	Every 6 months.	1st January
Dioxins / furans (WHO-TEQ Fish)	W1	Every 6 months.	1st January
Dioxins / furans (WHO-TEQ Birds)	W1	Every 6 months.	1st January
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Incinerator slag	Every 6 months.	1st January
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Incinerator slag	Before use of a new disposal or recycling route	1st January
TOC	Incinerator slag	Monthly	1st January
LOI (Alternative to TOC)	Incinerator slag	Monthly	1st January



<b>Table S2 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission Point</b>	<b>Reporting period</b>	<b>Period begins</b>
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Filter Cake	Every 6 months.	1st January
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Filter Cake	Before use of a new disposal or recycling route	1st January
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Other solid residues Furnace brick work - contaminated by combustion products	Every 6 months.	1st January
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Other solid residues Furnace brick work - contaminated by combustion products	Before use of a new disposal or recycling route	1st January
Water usage	Installation	Every 12 months	1st January
Energy usage	Installation	Every 12 months	1st January
Waste disposal and/or recovery.	Installation	Every 12 months	1st January
Performance Indicators	Installation	Every 12 months	1st January
Auxiliary Burner	Installation	Every 12 months	1st January

## Schedule 3 - Forms to be used

<b>Table S3 Reporting Forms</b>		
<b>Media or parameter</b>	<b>Form number</b>	<b>Date of form</b>
Air: Periodic monitored emissions biannually	Agency Form /HP3835UZ/A1 /March 2007	March 2007
Air: Continuously monitored emissions of particulates	Agency Form /HP3835UZ/A2 /March 2007	March 2007
Air: Continuously monitored emissions of Hydrogen chloride	Agency Form /HP3835UZ/A3 /March 2007	March 2007
Air: Continuously monitored emissions of TOC	Agency Form /HP3835UZ/A4 /March 2007	March 2007
Air: Continuously monitored emissions of carbon monoxide	Agency Form /HP3835UZ/A6 /March 2007	March 2007
Air: Continuously monitored emissions of Sulphur dioxide	Agency Form /HP3835UZ/A7 /March 2007	March 2007
Air: Continuously monitored emissions of Oxides of nitrogen	Agency Form /HP3835UZ/A8 /March 2007	March 2007
Water: monitoring data	Agency Form /HP3835UZ/W1 /March 2007	March 2007
Water: monitoring data	Agency Form /HP3835UZ/W2 /March 2007	March 2007
Water: monitoring data	Agency Form /HP3835UZ/W3/March 2007	March 2007
Incinerator slag, Filter Cake Residues, Other solid residues: Composition	Agency Form /HP3835UZ/Ash1 /March 2007	March 2007
Incinerator slag, Filter Cake Residues, Other solid residues: Solubility	Agency Form /HP3835UZ/Ash2 /March 2007	March 2007
Energy	Agency Form /HP3835UZ/E1 /March 2007	March 2007
Waste Return	Agency Form /HP3835UZ/R1 /March 2007	March 2007
Water usage	Agency Form /HP3835UZ/WU1 /March 2007	March 2007
Performance indicators	Agency Form /HP3835UZ/PI1 /March 2007	March 2007
Auxiliary Burner	Agency Form/ FP3935KL/Auxiliary1/October 2014	October 2014

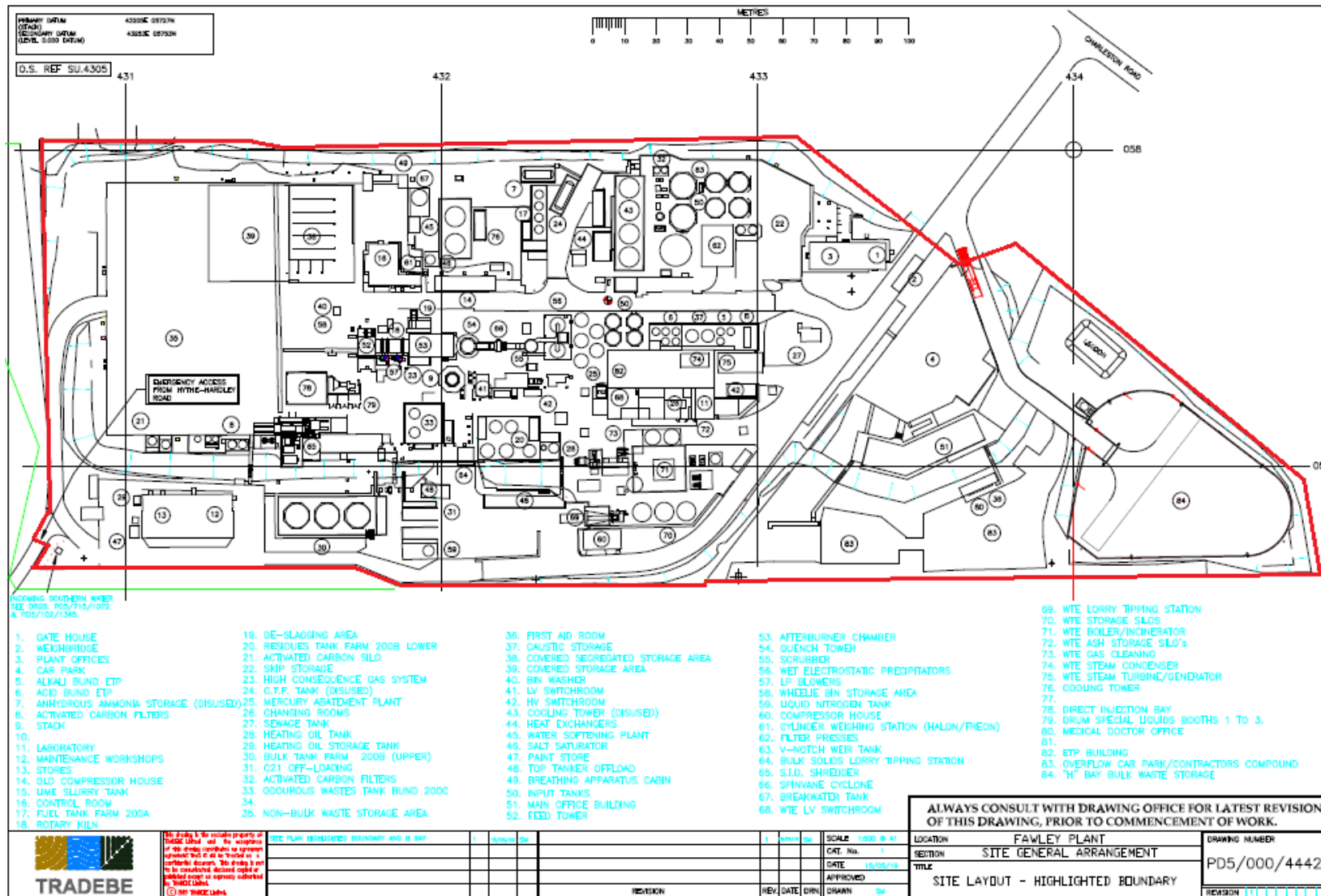
## Schedule 4 - Reporting of performance data

Data required to be recorded and reported by Condition 4.1.3. The data should be assessed at the frequency given and reported annually to the Agency.

<b>Table S4.1 Annual production/treatment</b>	
Total Hazardous Waste Incinerated	tonnes
Total Non-Hazardous Waste Incinerated	tonnes
Electrical energy used on installation	KWhrs
Total waste sent off-site for disposal or recovery	tonnes

<b>Table S4.2 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Performance indicator</b>
Electrical energy Imported to site	Quarterly	KWhrs / tonne of waste incinerated
Fuel oil consumption	Quarterly	kg/ tonne of waste incinerated
Mass of Incinerator slag produced	Quarterly	kg/ tonne of waste incinerated
Mass of Filter Cake produced	Quarterly	kg/ tonne of waste incinerated
Mass of Other solid residues produced	Quarterly	kg/ tonne of waste incinerated
Lime consumption	Quarterly	kg/ tonne of waste incinerated
Caustic soda consumption	Quarterly	kg/ tonne of waste incinerated
Water consumption	Quarterly	m <sup>3</sup> / tonne of waste incinerated

# Schedule 5 - Site Plan



## Schedule 6 - List of Permitted Wastes

<b>Table S6 Permitted waste types</b>		
<b>Description</b>	<b>European Waste Catalogue (EWC) number (where available) or other specification</b>	<b>Waste type as specified in Table 2.1.2</b>
Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals	01 01, 01 03, 01 04, 01 05 as detailed Table TW1 of application ZP3632SR  01 03 10	Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals
Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	02 01, 02 02, 02 03, 02 04, 02 05, 02 06, 02 07 as detailed Table TW1 of application ZP3632SR	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard	03 01, 03 02, 03 03, as detailed Table TW1 of application ZP3632SR	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
Wastes from the leather, fur and textile industries	04 01, 04 02 as detailed Table TW1 of application ZP3632SR	Wastes from the leather, fur and textile industries
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal	05 01, 05 06, 05 07, as detailed Table TW1 of application ZP3632SR	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal
Wastes from inorganic chemical processes	06 01, 06 02, 06 03, 06 04, 06 05, 06 06, 06 07, 06 08, 06 09, 06 10, 06 11, 06 13, as detailed Table TW1 of application ZP3632SR	Wastes from inorganic chemical processes
Wastes from organic chemical processes	07 01, 07 02, 07 03, 07 04, 07 05, 07 06, 07 07 as detailed Table TW1 of application ZP3632SR	Wastes from organic chemical processes
Wastes from the manufacture, formulation, supply and use of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks	08 01, 08 02, 08 03, 08 04, 08 05 as detailed Table TW1 of application ZP3632SR	Wastes from the manufacture, formulation, supply and use of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
Wastes from the photographic industry	09 01 as detailed Table TW1 of application ZP3632SR	Wastes from the photographic industry
Wastes from thermal processes	10 01, 10 02, 10 03, 10 04, 10 05, 10 06, 10 07, 10 08, 10 09, 10 10, 10 11, 10 12, 10 13, 10 14 as detailed Table TW1 of application ZP3632SR	Wastes from thermal processes
Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy	11 01, 11 02, 11 03, 11 05 as detailed Table TW1 of application ZP3632SR	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy

<b>Table S6 Permitted waste types</b>		
<b>Description</b>	<b>European Waste Catalogue (EWC) number (where available) or other specification</b>	<b>Waste type as specified in Table 2.1.2</b>
Wastes from shaping and physical and mechanical surface treatment of metals and plastics	12 01, 12 03, as detailed Table TW1 of application ZP3632SR	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
Oil wastes and wastes of liquid fuels (except edible oils, 05 and 12)	13 01, 13 02, 13 03, 13 04, 13 05, 13 07, 13 08 as detailed Table TW1 of application ZP3632SR	Oil wastes and wastes of liquid fuels (except edible oils, 05 and 12)
Waste organic solvents, refrigerants and propellants (except 07 and 08)	14 06 as detailed Table TW1 of application ZP3632SR	Waste organic solvents, refrigerants and propellants (except 07 and 08)
Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	15 01, 15 02, as detailed Table TW1 of application ZP3632SR	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
Wastes not otherwise specified in the list	16 01, 16 02, 16 03, 16 04, 16 05, 16 06, 16 07, 16 08, 16 09, 16 10, 16 11 as detailed Table TW1 of application ZP3632SR  16 03 07	Wastes not otherwise specified in the list
Construction and demolition wastes (including excavated soil from contaminated sites)	17 01, 17 02, 17 03, 17 04, 17 05, 17 06, 17 08 17 09 as detailed Table TW1 of application ZP3632SR	Construction and demolition wastes (including excavated soil from contaminated sites)
Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)	18 01, 18 02 as detailed Table TW1 of application ZP3632SR	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	19 01, 19 02, 19 03, 19 04, 19 05, 19 06, 19 07, 19 08, 19 09, 19 10, 19 11, 19 12, 19 13 as detailed Table TW1 of application ZP3632SR  19 03 08	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
Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	20 01, 20 02, 20 03, as detailed Table TW1 of application ZP3632SR	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions

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