



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

The Environmental Permitting (England & Wales) Regulations 2007

West Bromwich Chemical Works

Robinson Brothers Limited
Phoenix Street
West Bromwich
West Midlands
B70 0AH

Variation Notice Number
EA/EPR/BS4316IV/V008

Permit number
BS4316

Robinson Brothers Limited

Permit Number BS4316

Introductory note

This introductory note does not form a part of the permit

The following notice is issued under regulation 20 of The Environmental Permitting (England and Wales) Regulations 2007 (S.I.2007 No. 3538) (the Regulations) to vary the conditions of a permit issued under the Regulations to operate an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

The variation seeks to increase the annual tonnage of the waste specified in Condition 2.1.13 of Schedule 6 from 500 to 1,500

Detail	Date	Comment
Application BS4316	Received 02/09/03	Duly made following further submission on 10/09/04
Response to request for information (letter)	Request dated 08/04/04	Responses dated 04/05/04 and 06/07/04
Response to request for information (schedule 4 notice)	Request dated 18/05/04	Responses dated 15/06/04 and 06/07/04 and 29/07/04 and 04/08/04
Response to request for information (letter)	Request dated 06/07/04	Response dated 20/07/04
Request to extend determination period to 30/04/04	Request dated 05/12/03	Request accepted 12/12/03
Request to extend determination period to 31/08/04	Request dated 14/05/04	Request accepted 24/05/04
Request to extend determination period to 14/09/04	Request dated 31/08/04	Request accepted 31/08/04
Addendum to Application	Dated 02/09/04	Received 03/09/04
Permit determined	08/09/04	
Variation SP3234SK	01/03/05	Revision of completion date for an improvement condition and new improvement condition requiring the operator to consider improvements to gas odorant transfer couplings.

Application for WID variation GP3832SM	Received 01/04/05	
Schedule 4 Notice issued requiring addition information	Sent 07/06/05	
Response to schedule 4 Notice	Received 14/07/05	
Request for extension to 30/11/05	Sent 02/08/05	
Agreement to extension	Received 04/08/05	
Variation GP3832SM	Determined 22/12/05	
Consolidating Variation FP3232LK	Determined 25/08/06	
Application for Variation NP3936ME to burn waste in boiler	Received 21/12/06	
Further Information received	Received 23/02/07	Dated 22/02/07
Further Information received	Received 09/03/07	Dated 22/02/07
Variation NP3936ME	Determined 31/03/07	
Application for Variation GP3734UK to add emission points	Received 03/05/07	
Additional Information received	Received 31/07/07, 13/08/07	
Variation GP3734UK	Determined 31/08/07	
Application for Variation WP3238XB to alter monitoring	Received 04/02/08	
Further Information	Received 11/04/08	
Variation WP3238XB	Determined	
Application for Variation MP3136GV to add EWC code	Received 17/02/09	
Variation MP3136GV	Determined 20/02/09	
Application for Administrative Variation EA/EPR/BS4316IV/V008	Received 22/06/09	
Variation EA/EPRBS4316IV/V008	Issued 16/07/09	Consolidated Permit

Superseded Licenses/Consents/Authorisations relating to this installation		
Holder	Reference Number	Date of Issue
Robinson Brothers Limited	AK6438	28/02/94
Robinson Brothers Limited	AK6454	28/02/94
Robinson Brothers Limited	AK6462	28/02/94
Robinson Brothers Limited	AK6446	28/02/94
Robinson Brothers Limited	AL8410	31/05/94
Robinson Brothers Limited	AN8984	10/02/95
Robinson Brothers Limited	AN8992	01/02/95
Robinson Brothers Limited	AR7840	01/03/96

End of Introductory Note

Variation Notice

The Environmental Permitting Regulation (England and Wales) Regulations 2007

Variation Notice

Permit number

BS4316

Variation number

EA/EPR/BS4316IV/V008

The Environment Agency (the Agency) in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2007 (SI 2007 No 3538) hereby varies the permit held by you

Robinson Brothers Ltd ("the operator"),

whose registered office is

Phoenix Street

West Bromwich

West Midlands

B70 0AH

company registration number **201053**

to operate an installation at

Phoenix Street

West Bromwich

West Midlands

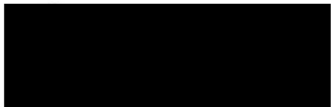
B70 0AH

to the extent set out in schedules 1 to 3 of this variation notice .

The notice shall take effect from 16 July 2009

Signed

Date

	16 July 2009
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David More

Authorised to sign on behalf of the Agency

SCHEDULE 1 – CONDITIONS TO BE DELETED

The following conditions are deleted:-

- 1. All conditions and schedules of permit BS4316 as amended**

SCHEDULE 2 – CONDITIONS TO BE AMENDED

SCHEDULE 3 – CONDITIONS TO BE ADDED

- 1. All conditions and schedules as follows:-**

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.

Table 1.1.1		
Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 4.1 A(1) (a)(ii): Manufacture of organic chemicals containing oxygen	Chemical manufacture where the product(s) are organic compounds containing oxygen	From receipt of raw materials to dispatch of products from the installation or transfer of wastes to effluent treatment plant, incinerator or off-site.
Section 4.1 A(1) (a)(iii): Manufacture of organic chemicals containing sulphur	Chemical manufacture where the product(s) are organic compounds containing sulphur	From receipt of raw materials to dispatch of products from the installation or transfer of wastes to effluent treatment plant, incinerator or off-site.
Section 4.1 A(1) (a)(iv): Manufacture of organic chemicals containing nitrogen	Chemical manufacture where the product(s) are organic compounds containing nitrogen	From receipt of raw materials to dispatch of products from the installation or transfer of wastes to effluent treatment plant, incinerator or off-site.
Section 4.1 A(1) (a)(vi): Manufacture of organic chemicals containing halogens	Chemical manufacture where the product(s) are organic compounds containing halogen	From receipt of raw materials to dispatch of products from the installation or transfer of wastes to effluent treatment plant, incinerator or off-site.
Section 5.1 A(1) (a): Incineration of hazardous waste	Waste incinerator	From receipt of wastes onto site or transfer of site wastes into collection systems to final stack discharges and transfer of wastes to effluent treatment plant or off-site

<i>Section 5.1 A(1) (b): Co-incineration of hazardous waste unless part of any other A(1) activity</i>	<i>Co-incineration of waste on boiler no. 2</i>	<i>From receipt of wastes onto site or transfer of site wastes into collection systems to final stack discharges and transfer of wastes to effluent treatment plant or off-site</i>
<i>Section 5.4 A(1) (a): Recovery of solvents by distillation</i>	<i>Chemical manufacture where solvents are recovered by distillation</i>	<i>From production or receipt of site generated solvents to transfer to production plants, incinerator, effluent treatment plant or off-site.</i>
<i>Section 1.1 B (b): Blending of odorants for natural gas</i>	<i>Gas odorant plant</i>	<i>From receipt of raw materials to dispatch of products from the installation or transfer of wastes to effluent treatment plant, incinerator or off-site.</i>
<i>Directly associated activity: Boiler plant</i>	<i>Site boiler plant</i>	<i>From receipt of raw materials to distribution of steam to manufacturing plants and other activities, or transfer of wastes to effluent treatment plant, incinerator or off-site.</i>
<i>Directly associated activity: Effluent treatment plant</i>	<i>Site effluent plant</i>	<i>From receipt of raw materials and wastes (including effluent treatment reagent from off-site) to transfer of materials off-site or to incinerator.</i>

- 1.1.2 Where waste on site is subjected to activities that are exempt from control under the Waste Management Licensing Regulations 1994 then the wastes controlled under condition 1.1.1, above, shall be clearly identified and kept separate from such exempt waste activities and a record shall be kept of where such exempt activities are conducted.

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 green 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.

Table 1.4.1: Improvement programme		
Ref	Requirement	Date
1	The Operator shall install a low NO _x burner on the waste incinerator.	Completed
2	The Operator shall make the improvements detailed in section 2.9 of the Application to reduce noise emissions from the installation.	Completed
3	The Operator shall submit a report detailing proposals for formal assessment of emissions of noise from the installation. The report shall take into account Horizontal Guidance Note H3, any complaints received regarding noise, and any subsequent correspondence with regulatory bodies, and shall commit the operator to completing the assessment by 30th November 2005 .	Completed
4	The Operator shall submit in writing, a report confirming that all monitoring required for all parameters listed in Table 2.2.2 are representative. Specific derogation from requirements of BS EN 13284-1:2002 and ISO 10396:1993, as appropriate for particulate and gaseous emissions respectively, are to be indicated. The report shall include a programme to implement changes to meet the standard requirements by 31st December 2007 . If the Operator proposes not to improve any sample points then a BAT justification shall be provided.	Completed
5	The Operator shall complete the drainage repair programme as identified by the May 2002 inspection and previously agreed in writing with the Agency	Completed
6	The Operator shall make any improvements necessary to prevent fugitive discharges to ground via the FC1 area.	Completed
7	The Operator shall submit a written report to the Environment Agency that summarises a review of the provision of MCERTS accreditation for the monitoring equipment, personnel and organisations employed for the emissions monitoring program in condition 2.10.1. The report shall also propose a timetable for achieving this standard for any elements that are not MCERTS certified	Completed
8	The Operator shall submit a written report to the Environment Agency, detailing proposals to validate all in-house analytical methods used to support monitoring for this permit for all analytes reported, including uncertainties and limits of detection.	Completed
9	The operator shall initiate a procedure to inform the Agency of any new or revised Best Practicable Environmental Option for the treatment, recovery or disposal of wastes, and to maintain a register of all such BPEOs.	Completed
10	The operator shall carry out an odour impact assessment as defined in the IPPC Guidance Note H4. and report the results to the Agency in writing.	Completed
11	The operator shall produce a report assessing the options for reducing the level of COD, BOD, suspended solids and ammoniacal nitrogen from release points W1, W2 and W3, to meet the benchmark limits contained within IPPC Sector Guidance Note 4.02, section 3.3.2. The report shall assess which option represents BAT and commit the operator to achieving this by 31st March 2007 .	Completed

12	The operator shall produce a report assessing the options for reducing carbon disulphide emissions to air from the P25 and DIXD processes. The report shall assess which options represent BAT and commit the operator to achieving this by 31st December 2006	Completed
13	The operator shall produce a report assessing the options for reducing releases of particulates to air. The report shall also review the potential impact of the releases. When determining potential impact, the composition of the particulate shall be considered in addition to particle size and concentration. The report shall assess which options represent BAT and commit the operator to achieving this by 31st December 2007	Completed
14	The operator shall submit a report assessing the height of all discharge stacks using Technical Guidance Note D1. The report shall assess which stacks are of insufficient height to represent BAT and commit the operator to achieving BAT by 30th June 2007	Completed
15	The Operator shall submit a report detailing on the environmental fate of the raw materials detailed in Table 2.4.1.1 of the Application, with reference to the Sector Guidance IPPC S4.02.	Completed
16	The operator shall prepare a site closure plan for the installation, meeting the requirements of the Sector Guidance IPPC S4.02.	Completed
17	The operator shall introduce procedures to control the storage of drums on site. Individual areas should be controlled so that the stated capacity is not exceeded, only specified materials are stored, and a maximum storage period is set for wastes.	Completed
18	The operator shall produce a report detailing the point source speciated VOC releases to air from the installation. The report should present the data in terms of chemical species, concentrations, mass releases per batch cycle, and likely ranges of annual mass releases based upon historical or proposed production data. This approach should be used to describe processes from each of the groups and sub-groups described in the Application from which VOCs are so emitted.	Completed
19	The operator shall produce a report detailing the most likely significant fugitive VOC releases to air from the installation. The report shall present estimates in terms of processes, chemical species, location, and likely ranges of annual mass releases.	Completed
20	The operator shall produce a report demonstrating that all process, on/off-loading and storage areas which rely on the site drainage system for spillage containment represent BAT, or making proposals to achieve BAT by 31st May 2007	Completed
21	The Operator shall submit a report demonstrating how the existing on and off-site treatment of aqueous effluents represent BAT for each group of substances emitted, or proposing improvements to meet BAT.	Completed
22	The Operator shall submit a report demonstrating that any bunds noted in section 2.2.5 of the Application as not containing the associated pumps and pipework represent BAT, or proposing improvements to meet BAT.	Completed
23	The operator shall submit a report detailing the measures taken to reduce releases to the environment of any substance used on site which is listed in List I or List II of the Dangerous Substances Directive.	Completed
24	The Operator shall provide, in writing, a protocol used by the Operator to determine 'uncertainty' values associated with each parameter to be reported for each emission point together with an indication of the likely uncertainty values associated with the test methods to be used.	Completed
25a	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(a), identifying the fractions within the PM ₁₀ , PM _{2.5} and PM _{1.0} ranges. The proposal shall include a timetable to carry out such tests and produce a report on the results	Completed
25b	On receipt of written agreement by the Agency to the proposal made	Completed

	<i>under improvement condition 25a and the timetable, the Operator shall carry out the tests and submit to the Agency a report on the results.</i>	
26	<i>The Operator shall calibrate and verify the performance of Continuous Emission Monitors for release points and parameters as specified in Table 2.2.1 to BS EN 14181 and submit a summary report to the Environment Agency as evidence of compliance with the requirements of BS EN 14181</i>	31/07/08
27	<i>The operator shall propose a programme of testing to demonstrate that analysis of waste streams can be used as a surrogate for emissions of hydrogen chloride and hydrogen fluoride from emission point A(1)(e)</i>	Completed
28	<i>On receipt of written agreement by the Environment Agency to the proposals made under improvement condition 27, the operator shall carry out the testing programme and report the results to the Agency in writing.</i>	Completed
29	<i>The operator shall ensure that all monitoring of points RA6V19, RA6V20 and RA6V28 is fully compliant with the methods shown in Table 2.2.2, rather than those otherwise agreed.</i>	30/09/08
30	<i>The operator shall ensure that all monitoring for emissions to air specified in this permit is carried out in compliance with the methods shown within tables 2.2.2 and 2.2.2A, rather than those otherwise agreed.</i>	31/12/08

- 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.

Table 2.1.1: Operating techniques		
Description	Parts	Date Received
Application	<i>The response to questions 2.1 and 2.2 given in sections 2.1 and 2.2 of the application. The Multi Product Protocol (MPP) contained in Appendix 1</i>	10/09/03
Additional Information	All	04/05/04
Additional Information	Sections 1 to 5 (sections 2, 3 and 5 refer to the Multi Product Protocol)	18/06/04
Additional Information	Sections 6 to 10	08/07/04
Additional Information	Sections A to E	28/07/04
Additional Information	All	03/09/04
Application for Variation GP3832SM	<i>The response and additional information in response to questions 2.1 and 2.2 and appendix 1 of the Application</i>	01/04/05
Application for Variation NP3936ME	Sections C2.1 and C2.2	21/12/06
Additional information	All	23/02/07
Application for Variation GP3734UK	Sections C1, C2, C3, C4, C5 and C6 and the updated plan of NP4,	03/05/07
Additional Information	All	31/07/07
Additional Information	All	13/08/07
Application for Variation WP3238XB	Section C	04/02/08
Additional Information	All	11/04/08
Additional Information	Emission point plan	24/04/08
Application for Variation MP3136GV	section C	16/02/09

- 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 4.1.7 of this Permit (as amended from time to time under condition 4.1.8), or as otherwise agreed in writing by the Agency.
- 2.1.3 Only the wastes specified in Schedule 6 shall be incinerated in the Permitted Installation in quantities not exceeding those specified for the waste types specified in Table 2.1.2.

Table 2.1.2: Permitted Waste Types

Emmision point	Waste Type	Limitations	Maximum throughput at specified locations
A1(a)	<i>Range of aqueous liquids, mother liquors, organic and non-halogenated organic solvents, halogenated and non-halogenated still bottoms and reaction residues.</i> <i>EWC 05 07 02, 07 01 01, 07 01 03, 07 01 04, 07 01 07, 07 01 08, 07 07 01, 07 07 03, 07 07 04, 07 07 07, 07 07 08, 07 05 01, 07 05 03, 07 05 04 07 05 07, 07 05 08, 16 07 09, 19 02 08 and 19 02 11</i>	<i>Specified in Application for Variation GP3832SM</i>	<i>2,500 tonnes per annum</i>
A1(e)	<i>Range of non-halogenated materials.</i> <i>05 07 02, 07 01 01, 07 01 04, 07 01 08, 07 05 01, 07 05 04, 07 05 08, 07 07 01, 07 07 04, 07 07 08, 16 07 09, 19 02 08 and 19 02 11.</i>	<i>Specified in Application for Variation NP3936ME</i> <i>And the additional information received on 09/03/2007</i>	<i>4,380 tonnes per annum</i>

- 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.
- 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:
- the combustion chamber temperature is below or falls below 850oC; or
 - the oxygen level is or falls below 6% (wet) by volume; or
 - any continuous emission limit value in Table 2.2.3(a) is exceeded; or
 - any continuous emission limit value in Table 2.2.3 is exceeded, other than under the abnormal operating conditions; or
 - monitoring results required to demonstrate compliance with any continuous emission limit value in Table 2.2.3 are unavailable other than during a period of abnormal operation.
- 2.1.8 The Operator shall operate at least one auxiliary burner in each line of the Installation 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) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.

- 2.1.9 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 2.2.3, or continuous emission monitor(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;
 - the alternative techniques to demonstrate compliance with the abnormal operation emission limit value(s) in Table 2.2.3 (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 Only the wastes specified in Schedule 6 shall be disposed of in the effluent plant as reagents, in quantities not exceeding 1,500 tonnes per annum, or 10 tonnes per day.

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.

Table 2.2.1 : Emission points to air

Emission point reference	Source	Plant Area	Location of emission point
A1a	Main incinerator	Incinerator	Point A1(a) on drawing 4012-30
A1b	Rich stream incinerator	Incinerator	Point A1(b) on drawing 4012-30
A1c	Incinerator Standby scrubber	Incinerator	Point A1(c) on drawing 4012-30
A1d	no. 1 Boiler	Incinerator	Point A1(d) on drawing 4012-30
A1e	no.2 Boiler	Incinerator	Point A1(e) on drawing 4012-30
E1V1	Dust filter no.1	Esters 1	Point E1V1 on page 92 of Production Plant Descriptions
E1V2	Dust filter no.2	Esters 1	Point E1V2 on page 92 of Production Plant Descriptions
E2V1	Dust filter no.3	Esters 2	Point E2V1 on page 95 of Production Plant Descriptions
E2V2	Dust filter no.4	Esters 2	Point E2V2 on page 95 of Production Plant Descriptions
E2V3	Bar Mill	Esters 2	Point E2V3 on page 95 of Production Plant Descriptions
E2V4	Dust filter no.5	Esters 2	Point E2V4 on page 95 of Production Plant Descriptions
E3V1	Reactor no.4	Esters 3	Point E3V1 on page 98 of Production Plant Descriptions
E3V2	Reactor no.3	Esters 3	Point E3V2 on page 98 of Production Plant Descriptions
E3V5	Bag filter	Esters 3	Point E3V5 on page 98 of Production Plant Descriptions
E3V10	Moving air oven no.1	Esters 3	Point E3V10 on page 98 of Production Plant Descriptions
E3V11	Moving air oven no.2	Esters 3	Point E3V11 on page 98 of Production Plant Descriptions
E3V12	Moving air oven no.3	Esters 3	Point E3V12 on page 98 of Production Plant Descriptions
E3V13	Centrifuge no.4	Esters 3	Point E3V13 on page 98 of Production Plant Descriptions
G01	Gas Odorant Scrubber	Gas Odorant	Point G01 on drawing 4012-30
NP1V1	Autoclave 9 scrubber	NP1	Point NP1V1 on page 52 of Production Plant Descriptions
NP1V2	Autoclave 10 scrubber	NP1	Point NP1V2 on page 52 of Production Plant Descriptions
NP1V5	Hydrogen vent	NP1	Point NP1V5 on page 52 of Production Plant Descriptions
NP1V6	Header tank vent no.1	NP1	Point NP1V6 on page 52 of Production Plant Descriptions
NP1V7	Header tank vent no.2	NP1	Point NP1V7 on page 52 of Production Plant Descriptions
NP1V8	Autoclave 11 scrubber	NP1	Point NP1V8 on page 52 of Production Plant Descriptions
NP2V1	Scrubber no.1	NP2	Point NP2V1 on page 54 of Production Plant Descriptions
NP2V2	Scrubber no.2	NP2	Point NP2V2 on page 54 of Production Plant Descriptions

NP2V7	Dust Extractor	NP2	Point NP2V7 on page 54 of Production Plant Descriptions
NP2V14	Vacuum system no.3	NP2	Point NP2V14 on page 54 of Production Plant Descriptions
NP2V15	Vacuum system no.2	NP2	Point NP2V15 on page 54 of Production Plant Descriptions
NP2V28	Scrubber no.3	NP2	Point NP2V28 on page 54 of Production Plant Descriptions
NP2V29	Reactor no.8	NP2	Point NP2V29 on page 54 of Production Plant Descriptions
NP3V1	Fluid bed drier no.1	NP3	Point NP3V1 on page 59 of Production Plant Descriptions
NP3V2	Discharge system no.1	NP3	Point NP3V2 on page 59 of Production Plant Descriptions
NP3V3	Fluid bed drier no.2	NP3	Point NP3V3 on page 59 of Production Plant Descriptions
NP3V4	Fluid bed drier no.3	NP3	Point NP3V4 on page 59 of Production Plant Descriptions
NP3V5	Discharge system no.3	NP3	Point NP3V5 on page 59 of Production Plant Descriptions
NP3V6	Discharge system no.2	NP3	Point NP3V6 on page 59 of Production Plant Descriptions
NP4V16	Carbon absorber	NP4	Point NP4V16 in plan supplied with Application for Variation GP3734UK
NP4V17	Dust Extractor	NP4	Point NP4V17 in plan supplied with Application for Variation GP3734UK
NP5V7	Oven no.1	NP5	Point NP5V7 on page 66 of Production Plant Descriptions
NP5V10	Process Scrubber	NP5	Point NP5V10 on page 66 of Production Plant Descriptions
NP5V11	Centrifuge gauge tank	NP5	Point NP5V11 on page 66 of Production Plant Descriptions
NP5V12	Flow booth extraction	NP5	Point NP5V12 on page 66 of Production Plant Descriptions
NP6V7	Header Tank no. 1	NP6	Point NP6V7 on revised Production Plant Description supplied 03/09/04
NP6V11	Dust extractor no. 1	NP6	Point NP6V11 on revised Production Plant Description supplied 03/09/04
NP6V12	Dust extractor no. 2	NP6	Point NP6V12 on revised Production Plant Description supplied 03/09/04
NP6V13	Header tank no.2	NP6	Point NP6V13 on revised Production Plant Description supplied 03/09/04
NP6V14	Guedu mother liquor tank	NP6	Point NP6V14 on revised Production Plant Description supplied 03/09/04
NP6V17	Reactor no.6	NP6	Point NP6V17 on revised Production Plant Description supplied 03/09/04

NP6V18	Busch vacuum receiver	NP6	Point V18 on plan submitted on 11/04/08
NP6V19	Hastelloy Guedu	NP6	Point V19 on plan submitted on 11/04/08
NP6V20	Glove Box	NP6	Point V20 on plan submitted on 11/04/08
NP7V3	Reactor no.3	NP7	Point NP7V3 on page 74 of Production Plant Descriptions
NP7V5	General scrubber no.3	NP7	Point NP7V5 on page 74 of Production Plant Descriptions
NP7V6	Phosgene scrubber	NP7	Point NP7V6 on page 74 of Production Plant Descriptions
NP7V14	Centrifuge no.1	NP7	Point NP7V14 on page 74 of Production Plant Descriptions
NP7V18	Reactor no.3 HCl flask	NP7	Point NP7V18 on page 74 of Production Plant Descriptions
NP7V20	Bromine scrubber	NP7	Point NP7V20 on page 74 of Production Plant Descriptions
NP7V21	Reactor no.10	NP7	Point NP7V21 on page 74 of Production Plant Descriptions
NP7V22	Reactor 9	NP7	Point 21 on plan received 24/04/08
NP7V23	Centrifuge 3	NP7	Point 22 on plan received 24/04/08
NP8V1	Reactor no.1	NP8	Point NP8V1 on page 78 of Production Plant Descriptions
NP8V4	Reactor no.4	NP8	Point NP8V4 on page 78 of Production Plant Descriptions
NP8V8	Scrubber no.3	NP8	Point NP8V8 on page 78 of Production Plant Descriptions
NP8V9	Scrubbers no.s 1 and 2	NP8	Point NP8V9 on page 78 of Production Plant Descriptions
NP8V12	Bag filter no.1 canal side	NP8	Point NP8V12 on page 78 of Production Plant Descriptions
NP8V13	Bag filter no.2 GO side	NP8	Point NP8V13 on page 78 of Production Plant Descriptions
NP8V14	Centrifuge discharge extraction	NP8	Point NP8V14 on page 78 of Production Plant Descriptions
NP8V17	Centrifuge no.1 & no.2 wash tank	NP8	Point NP8V17 on page 78 of Production Plant Descriptions
NP8V22	MOP scrubber	NP8	Point NP8V22 on page 78 of Production Plant Descriptions
PIP1V2	Autoclave no.3	PIP1	Point PIP1V2 on page 83 of Production Plant Descriptions
PIP1V3	Autoclave no.7	PIP1	Point PIP1V3 on page 83 of Production Plant Descriptions
PIP1V5	Scrubber no.5	PIP1	Point PIP1V5 on page 83 of Production Plant Descriptions
PIP1V6	Emergency scrubber	PIP1	Point PIP1V6 on page 83 of Production Plant Descriptions
PIP1V7	Plant scrubber	PIP1	Point PIP1V7 on page 83 of Production Plant Descriptions

PIP1V8	Autoclave no.4	PIP1	Point PIP1V8 on page 83 of Production Plant Descriptions
PIP1V9	Vent point	PIP1	Point PIP1V9 on page 83 of Production Plant Descriptions
PIP2V3	Crude tank no.3	PIP2	Point PIP2V3 on page 86 of Production Plant Descriptions
PIP2V4	Crude tank no.4	PIP2	Point PIP2V4 on page 86 of Production Plant Descriptions
PIP2V5	Autoclave no.6	PIP2	Point PIP2V5 on page 86 of Production Plant Descriptions
PIP3V3	Steam ejector	PIP3	Point PIP3V3 on page 89 of Production Plant Descriptions
PIP3V5	no.2 still vent tank	PIP3	Point PIP3V5 on page 89 of Production Plant Descriptions
PIP3V7	no.3 still – receiver no.3	PIP3	Point PIP3V7 on page 89 of Production Plant Descriptions
PIP3V8	no.3 still- receiver no.4	PIP3	Point PIP3V8 on page 89 of Production Plant Descriptions
PIP3V9	no.3 still – receiver no.1	PIP3	Point PIP3V9 on page 89 of Production Plant Descriptions
PIP3V11	Inters receiver	PIP3	Point PIP3V11 on page 89 of Production Plant Descriptions
PIP3V13	Vacuum system	PIP3	Point PIP3V13 on page 89 of Production Plant Descriptions
RA6V2	Centrifuges	RA6	Point RA6V2 on page 39 of Production Plant Descriptions
RA6V3	Dust filter no.1	RA6	Point RA6V3 on page 39 of Production Plant Descriptions
RA6V10	Vacuum system	RA6	Point RA6V10 on page 39 of Production Plant Descriptions
RA6V11	Dust filter no.2	RA6	Point RA6V11 on page 39 of Production Plant Descriptions
RA6V12	Dust filter no.3	RA6	Point RA6V12 on page 39 of Production Plant Descriptions
RA6V13	Drying oven no.1	RA6	Point RA6V13 on page 39 of Production Plant Descriptions
RA6V14	Drying oven no.2	RA6	Point RA6V14 on page 39 of Production Plant Descriptions
RA6V15	Drying oven no.3	RA6	Point RA6V15 on page 39 of Production Plant Descriptions
RA6V16	Drying oven no.4	RA6	Point RA6V16 on page 39 of Production Plant Descriptions
RA6V17	Drying oven no.5	RA6	Point RA6V17 on page 39 of Production Plant Descriptions
RA6V18	Drying oven no.6	RA6	Point RA6V18 on page 39 of Production Plant Descriptions
RA6V19	Precipitator 3 and holding tank	RA6	Point RA6V19 on plan received 13 August 2007
RA6V20	Precipitator 1	RA6	Point RA6V20 on plan received 13 August 2007
RA6V22	Acetic peroxide make-up tank no.1	RA6	Point RA6V22 on page 39 of Production Plant Descriptions

RA6V23	Acetic peroxide make-up tank no.2	RA6	Point RA6V23 on page 39 of Production Plant Descriptions
RA6V24	Drying oven no.7	RA6	Point RA6V24 on page 39 of Production Plant Descriptions
RA6V25	Drying oven no.8	RA6	Point RA6V25 on page 39 of Production Plant Descriptions
RA6V26	Drying oven no.9	RA6	Point RA6V26 on page 39 of Production Plant Descriptions
RA6V28	Precipitator 2	RA6	Point RA6V28 on plan received 13 August 2007
RA7V1	10 ACM Mill	RA7	Point RA7V1 on page 42 of Production Plant Descriptions
RA7V2	Mill Pulseaire unit	RA7	Point RA7V2 on page 42 of Production Plant Descriptions
RA7V5	Fluid bed drier	RA7	Point RA7V5 on page 42 of Production Plant Descriptions
RA7V6	DIXD reactor and Nutsche filter	RA7	Point RA7V6 on page 42 of Production Plant Descriptions
RA7V8	Bag Filter	RA7	Point V8 on plan submitted on 11/04/08
RA8V1	Reactor no.3 scrubber	RA8	Point RA8V1 on page 45 of Production Plant Descriptions
RA8V2	Reactor no.1 scrubber	RA8	Point RA8V2 on page 45 of Production Plant Descriptions
RA8V3	Reactor no.2 scrubber	RA8	Point RA8V3 on page 45 of Production Plant Descriptions
RA8V4	Amine charge cubicle extraction	RA8	Point RA8V4 on page 45 of Production Plant Descriptions
RA8V5	SPD holding tank no.1	RA8	Point RA8V5 on page 45 of Production Plant Descriptions
RA8V7	SPD holding tank no.2	RA8	Point RA8V7 on page 45 of Production Plant Descriptions
RA9V1	Charge cubicle extraction	RA9	Point RA9V1 on page 48 of Production Plant Descriptions
RA9V2	Flaker	RA9	Point RA9V2 on page 48 of Production Plant Descriptions
RA9V3	Standby scrubber	RA9	Point RA9V3 on page 48 of Production Plant Descriptions
RA9V4	Receiver	RA9	Point RA9V4 on page 48 of Production Plant Descriptions
RA10V1	Dust extraction unit	RA10	Point RA10V1 on page 49/2 of Production Plant Descriptions
RA10V2	Mill	RA10	Point RA10V2 on page 49/2 of Production Plant Descriptions
RA10V3	Vacuum pump	RA10	Point RA10V3 on page 49/2 of Production Plant Descriptions
RPPV4	Oven	Research Pilot Plant	Point RPPV4 on page 32 of Production Plant Descriptions
RPPV8	Autoclave no.1	Research Pilot Plant	Point RPPV8 on page 32 of Production Plant Descriptions
RPPV9	Autoclave no.2	Research Pilot Plant	Point RPPV9 on page 32 of Production Plant Descriptions

RPPV10	Autoclave no.3	Research Pilot Plant	Point RPPV10 on page 32 of Production Plant Descriptions
RPPV11	Autoclave no.11	Research Pilot Plant	Point RPPV11 on page 32 of Production Plant Descriptions
RPPV12	Pilot Plant Scrubber	Research Pilot Plant	Point RPPV12 on page 32 of Production Plant Descriptions
RPPV13	Carbon Absorber	Research Pilot Plant	Point V13 on plan submitted on 11/04/08
RTV1	CS ₂ road tanker vent 1	CS ₂ Storage	Point RTV1 on drawing 4012-30
RTV2	CS ₂ road tanker vent 2	CS ₂ Storage	Point RTV2 on drawing 4012-30
T19	PIP tank 19	PIP Tank Farm	Point 19 on drawing 4012-30
T20	PIP residue tank 20	PIP Tank Farm	Point 20 on drawing 4012-30
T22	PIP inters tank 22	PIP Tank Farm	Point 22 on drawing 4012-30
T23	Piperidine tank 23	PIP Tank Farm	Point 23 on drawing 4012-30
T24	Piperidine tank 24	PIP Tank Farm	Point 24 on drawing 4012-30
T25	Piperidine tank 25	PIP Tank Farm	Point 25 on drawing 4012-30
T26	Piperidine tank 26	PIP Tank Farm	Point 26 on drawing 4012-30
T27	Piperidine tank 27	PIP Tank Farm	Point 27 on drawing 4012-30
T28	Piperidine tank 28	PIP Tank Farm	Point 28 on drawing 4012-30
T30	Piperidine tank 30	PIP Tank Farm	Point 30 on drawing 4012-30
T43	Ethyl acetate tank 43	NP5 Tank Farm	Point 43 on drawing 4012-30
T45	Solvent fuel tank 45	NP5 Tank Farm	Point 45 on drawing 4012-30
T46	Waste solvent tank 46	NP5 Tank Farm	Point 46 on drawing 4012-30
T47	Methanol tank 47	NP5 Tank Farm	Point 47 on drawing 4012-30
T48	IPA tank 48	NP5 Tank Farm	Point 48 on drawing 4012-30
T50	N-methyl benzylamine tank 50	NP5 Tank Farm	Point 50 on drawing 4012-30
T56	Ethanol tank 56	NP8 Tank Farm	Point 56 on drawing 4012-30
T57	Toluene tank 57	NP8 Tank Farm	Point 57 on drawing 4012-30
T58	Recovered toluene tank 58	NP8 Tank Farm	Point 58 on drawing 4012-30
T59	IMS tank 59	NP8 Tank Farm	Point 59 on drawing 4012-30
T60	Waste solvent tank 60	NP8 Tank Farm	Point 60 on drawing 4012-30
T61	Waste solvent tank 61	NP8 Tank Farm	Point 61 on drawing 4012-30
T70	Recovered chlorobenzene tank 70	NP8 Tank Farm	Point 70 on drawing 4012-30
T71	Chlorobenzene tank 71	NP8 Tank Farm	Point 71 on drawing 4012-30
T98	SDMC tank 98	RA8 Tank Farm	Point 98 on drawing 4012-30
T99	SDBC tank 99	RA8 Tank Farm	Point 99 on drawing 4012-30
T100	NABAM/SDD tank 100	RA8 Tank Farm	Point 100 on drawing 4012-30

2.2.1.3 The limits for emissions to air for the parameters and emission points set out in Tables 2.2.2, 2.2.3 and 2.2.3(a) shall not be exceeded.

Table 2.2.2 : Emission limits to air and monitoring. Emissions NOT regulated under Waste Incineration Directive

Emission point reference	Parameter	Monitoring frequency	Limit (including Reference Period)	Monitoring method Note 8
A1(a)	Total dust	continuous	10 mg/m ³ daily average. Note 7	BS EN 13284-2
A1(a)	Total dust	continuous	30 mg/m ³ ½ hour average. Note 7	BS EN 13284-2
A1(a)	Total Organic Carbon (as C)	continuous	10 mg/m ³ daily average. Note 7	BS EN 12619
A1(a)	Total Organic Carbon (as C)	continuous	20 mg/m ³ , ½ hour average Note 7	BS EN 12619
A1(a)	Hydrogen Chloride	continuous	10 mg/m ³ daily average. Note 7	MCERTS certified instruments
A1(a)	Hydrogen Chloride	continuous	60 mg/m ³ , ½ hourly average. Note 7	MCERTS certified instruments
A1(a)	Sulphur dioxide	continuous	50 mg/m ³ daily average. Note 7	ISO 6069-4.4
A1(a)	Sulphur dioxide	continuous	200 mg/m ³ , ½ hourly average. Note 7	ISO 6069-4.4
A1(a)	Oxides of nitrogen, expressed as NO ₂	continuous	400 mg/m ³ daily average. Note 7	ISO 10849
A1(a)	Oxides of nitrogen, expressed as NO ₂	continuous	500 mg/m ³ ½ hourly average. note 7	ISO 10849
A1(a)	Carbon monoxide	continuous	50 mg/m ³ daily average. Note 7	ISO 12039
A1(a)	Carbon monoxide	continuous	100 mg/m ³ , ½ hourly average. Note 7	ISO 12039
A1(a)	Carbon disulphide	6 monthly	2 mg/m ³	BS EN 13649
A1(a)	Hydrogen sulphide	6 monthly	5 mg/m ³	US EPA Method 11
A1(a),	Organic sulphides and mercaptans (as methyl mercaptan)	6 monthly	2 mg/m ³	Note 1
NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Amines as Dimethylamine	Annually, Note 4	10 mg/m ³	Sampling based on BS EN 13649. Analysis using principles of NIOSH methods 2002 and 2010

Table 2.2.2 : Emission limits to air and monitoring. Emissions <u>NOT</u> regulated under Waste Incineration Directive				
GO1	Organic sulphides and mercaptans	Quarterly	2 mg/m ³	Note 1
NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	carbon disulphide	Annually, Note 4	5 mg/m ³	BS EN 13649
NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Ammonia	Annually, Note 4	10 mg/m ³	US EPA method 26
NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Hydrogen Chloride	Annually, Note 4	10 mg/m ³	BS EN 1911 :1998
RA6V19, RA6V20, RA6V28	Carbon disulphide	Quarterly, Note 4	4.5 kg per batch	BS EN 13649
RA6V19, RA6V20, RA6V28	Amines as Dimethylamine	Quarterly, Note 4	0.2 kg/hr	Sampling based on BS EN 13649. Analysis using principles of NIOSH methods 2002 and 2010
RRPV12 Note 2	Amines as Dimethylamine	Quarterly Note 5	10 mg/m ³	Sampling based on BS EN 13649. Analysis using principles of NIOSH methods 2002 and 2010
RRPV12, Note 2	Ammonia	Quarterly Note 5	10 mg/m ³	US EPA method 26
RRPV12, Note 2	Carbon Disulphide	Quarterly Note 5	5 mg/m ³	BS EN 13649
RRPV12, Note 2	Fluorine	Quarterly Note 5	5 mg/m ³	BS ISO 15713
RRPV12, Note 2	Chlorine	Quarterly Note 5	10 mg/m ³	BS ISO 15713
RRPV12, Note 2	Bromine	Quarterly Note 5	10 mg/m ³	BS ISO 15713
RRPV12, Note 2	Hydrogen Fluoride	Quarterly Note 5	5 mg/m ³	Note 1
RRPV12, Note 2	Hydrogen Chloride	Quarterly Note 5	10 mg/m ³	BS EN 1911 :1998
RRPV12, Note 2	Hydrogen Bromide	Quarterly Note 5	5 mg/m ³	Note 1
RRPV12, Note 2	Hydrogen Cyanide	Quarterly Note 5	2 mg/m ³	Note 1
RRPV12, Note 2	Hydrogen Sulphide	Quarterly Note 5	5 mg/m ³	Note 1

Table 2.2.2 continued: Emission limits to air and monitoring. Emissions <u>NOT</u> regulated under Waste Incineration Directive				
RRPV12, Note 2	Oxides of nitrogen (total acid forming as NO ₂)	Quarterly Note 5	100 mg/m ³	Note 1
RRPV12, Note 2	Organic sulphides and mercaptans (as methyl mercaptan)	Quarterly Note 5	2 mg/m ³	Note 1
RRPV12, Note 2	Phosgene	Quarterly Note 5	1 mg/m ³	Note 1
RRPV12, Note 2	Oxides of sulphur (as SO ₂)	Quarterly Note 5	100 mg/m ³	Note 1
RRPV12, Note 2	Special Volatile organic compounds	Quarterly Note 5 Note 6	5 mg/m ³	BS EN 1076:1997
RRPV12, Note 2	Class A Volatile organic compounds	Quarterly Note 5	20 mg/m ³ if release rate exceeds 100g/hr	BS EN 1076:1997
RRPV12, Note 2	Class B Volatile organic compounds (as carbon)	Quarterly Note 5	75 mg/m ³ if release exceeds 2 kg/hr	BS EN 13526
RRPV12, Note 2	Particulate Matter	Quarterly, Note 5	5 mg/m ³	BS EN 13284-1
RRPV12 Note 2	Boron trifluoride	Quarterly Note 4	5 mg/m ³	Note 1

Note 1: Using the following hierarchy of methods:- CEN if available, ISO if available, BS if available, US EPA if available, other validated method.

Note 2: These limits also apply to any other Authorised emission point listed specifically in a Process Briefing Note (as defined in the "Protocol For Changes In Production Runs And The Introduction Of New Processes", supplied with the Application), agreed by the Agency, for which no other limit for that substance and emission point appears in Table 2.2.2

Note 3: See Section 6 for reference conditions

Note 4: Monitoring is only required when a process with potential for a meaningful release of the specified parameters from the specified release point has been operated during the reporting period.

Note 5: The first batch of each process manufactured during the reporting period will be monitored if there is a likelihood of a meaningful release of the stated substance from the stated emission point.

Note 6: Any 'Special VOCs' must be specifically identified.

Note 7: The limit does not apply during start up or shutdown.

Note 8: The Operator may employ other alternative monitoring techniques for specific release points and determinands where this is agreed in writing in advance by the Agency. Any such alternative monitoring methods shall be those specified in section 2.10 of the Application, unless otherwise agreed in writing in advance by the Agency.

Table 2.2.3 : Emission limits to air and monitoring. Waste Incineration Directive (WID) regulated emissions during normal operation

<i>Emission point reference</i>	<i>Parameter</i>	<i>Limit (including Reference Period)¹ from 28/12/05</i>	<i>Monitoring frequency</i>	<i>Monitoring method</i>
A1(a), A1(e)	Particulate matter	30 mg/m ³ ½-hr average	Continuous measurement	BS EN 13284-2 ^{9 7}
A1(a) , A1(e)	Particulate matter	10 mg/m ³ daily average	Continuous measurement	BS EN 13284-2 ^{9 7}
A1(a) , A1(e)	Particulate matter	20 mg/m ³ periodic over minimum 1-hour period	Bi-annual	BS EN 13284-1
A1(a) , A1(e)	Total Organic Carbon (TOC)	20 mg/m ³ ½-hr average	Continuous measurement	BS EN 12619 ^{9 7}
A1(a) , A1(e)	Total Organic Carbon (TOC)	10 mg/m ³ daily average	Continuous measurement	BS EN 12619 ^{9 7}
A1(a) , A1(e)	Total Organic Carbon (TOC)	20 mg/m ³ periodic over minimum 1-hour period	Bi-annual	BS EN 12619
A1(a) , A1(e)	Hydrogen chloride Note 11	60 mg/m ³ ½-hr average	Continuous measurement	MCERTS certified instruments ^{10 8}
A1(a) , A1(e)	Hydrogen chloride Note 11	10 mg/m ³ daily average	Continuous measurement	MCERTS certified instruments ^{10 8}
A1(a) , A1(e)	Hydrogen chloride	30 mg/m ³ periodic over minimum 1-hour period	Bi-annual	BS EN 1911

Table 2.2.3 continued : Emission limits to air and monitoring. Waste Incineration Directive (WID) regulated emissions during normal operation

A1(e)	Hydrogen fluoride	4 mg/m ³ ½-hr average	Continuous measurement	MCERTS certified instruments ^{10 8}
A1(e)	Hydrogen fluoride	1 mg/m ³ daily average	Continuous measurement	MCERTS certified instruments ^{10 8}
A1(a) , A1(e)	Hydrogen fluoride	2 mg/m ³ periodic over minimum 1-hour period	Bi-annual	USEPA Method 26/26A
A1(a) , A1(e)	Carbon monoxide	100 mg/m ³ ½-hr average	Continuous measurement	ISO 12039 ^{9.5}
A1(a) , A1(e)	Carbon monoxide	50 mg/m ³ daily average	Continuous measurement	ISO 12039 ^{9.5}
A1(a) , A1(e)	Carbon monoxide	100 mg/m ³ periodic over minimum 4 hour period, data to be reported as ½- hour averages	Bi-annual	ISO 12039
A1(a) , A1(e)	Sulphur dioxide	200 mg/m ³ ½-hr average	Continuous measurement	BS 6069-4.49 6
A1(a) , A1(e)	Sulphur dioxide	50 mg/m ³ daily average	Continuous measurement	BS 6069-4.49 6
A1(a) , A1(e)	Sulphur dioxide	200 mg/m ³ periodic over minimum 4 hour period, data to be reported as ½ hour avs	Bi-annual	BS 6069-4.1
A1(a) , A1(e)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³ daily average	Continuous measurement	ISO 108499 6
A1(a) , A1(e)	Oxides of nitrogen, expressed as NO ₂	500 mg/m ³ 100% of half hourly averages over year	Continuous measurement	ISO 108499 6

Table 2.2.3 continued : Emission limits to air and monitoring. Waste Incineration Directive (WID) regulated emissions during normal operation

A1(a) , A1(e)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³ periodic over minimum 4 hour period, data to be reported as ½ hour averages	Bi-annual	ISO 10849 or BS ISO 11564
A1(a) , A1(e)	Cadmium & thallium and their compounds (total) ³	0.05 mg/m ³ periodic over minimum 30 minute, maximum 8 hour period	Bi-annual	BS EN 14385
A1(a) , A1(e)	Mercury and its compounds ³	0.05 mg/m ³ periodic over minimum 30 minute, maximum 8 hour period	Bi-annual	BS EN 13211
A1(a) , A1(e)	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) ³	0.5 mg/m ³ periodic over minimum 30 minute, maximum 8 hour period	Bi-annual	BS EN 14385
A1(a) , A1(e)	Dioxins / furans (I- TEQ)	0.1 ng/m ³ periodic over minimum 6 hours, maximum 8 hour period ⁴	Bi-annual	BS EN 1948

Note 1: See Section 6 for reference conditions

Note 2: No condition applies.

Note 3: 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 4: 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 5: 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 if no waste is being incinerated) 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 5 (or such other number justified in the Application for variation) 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 6: As Note 5, except that the value of the confidence interval is 20% in place on 10%.

Note 7: As Note 5, except that the value of the confidence interval is 30% in place on 10%.

Note 8: As Note 5, except that the value of the confidence interval is 40% in place on 10%.

Note 9: MCERTS certification to the appropriate ranges and determinands is a demonstration of compliance to the applicable standards.

Note 10: The certification range for MCERTS equipment should be 1.5 times the daily emission limit value.

Note 11: If the continuous hydrogen chloride monitor is not operating, the operator may then use the analytical method described in the additional information received on 21/02/07, to demonstrate compliance. If the operator cannot demonstrate that every batch of waste fed to the incinerator or Ruston boiler contains insufficient chlorine to breach the continuous limits for hydrogen chloride assuming complete conversion, then waste feed to the Incinerator and Ruston boiler shall cease.

Table 2.2.3 (a) : Emission limits to air and monitoring for Waste Incineration Directive (WID) regulated emissions during abnormal operating conditions as defined in condition 2.1.12

<i>Emission point reference</i>	<i>Parameter</i>	<i>Limit (including Reference Period)¹</i>	<i>Monitoring frequency</i>	<i>Monitoring method</i>
A1(a) , A1(e)	Particulate matter	150 mg/m ³ ½-hr average	Continuous measurement	BS EN 13824-2 ² during abatement plant failure
A1(a) , A1(e)	Total Organic Carbon (TOC)	20 mg/m ³ ½-hr average	Continuous measurement	BS EN 12619 ² during abatement plant failure
A1(a) , A1(e)	Carbon monoxide	100 mg/m ³ ½-hr average	Continuous measurement	ISO 12039 ³ during abatement plant failure

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 5 per day).

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

2.2.2 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.

Emissions to Water (other than to Sewer)

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 2.2.4 shall only arise from the source(s) specified in that Table

Table 2.2.4: Emission point to water		
Emission Point Reference or description	Source	Receiving Water
W1 on figure 5 of the site report	Surface water	River Tame at Great Bridge
W2 on figure 5 of the site report	Surface water	Walsall Canal at West Bromwich
W3 on figure 5 of the site report	Surface Water	Ridgacre Canal at West Bromwich

2.2.2.4 The limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 2.2.5 shall not be exceeded.

Table 2.2.5 : Emission limits to water and monitoring				
Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring method Note 2
W1	Suspended solids (mg/l)	30	Each discrete discharge (spot)	ISO 11929:1997, EN872
W1	COD (mg/l)	250	Each discrete discharge (spot)	ISO 6060:1989
W1	pH range	6 – 9	Each discrete discharge (spot)	calibrated pH probe
W1	Total metals (Zn, Cr, Pb, Cu, Ni) (mg/l)	0.5	Each discrete discharge (spot)	BS 6068: section 2.60 1998
W1	Total mercury (mg/l)	0.005	Each discrete discharge (spot)	Note 1
W2	Suspended solids (mg/l)	30	Each discrete discharge (spot)	ISO 11929:1997, EN872
W2	COD (mg/l)	250	Each discrete discharge (spot)	ISO 6060:1989
W2	pH range	6 – 9	Each discrete discharge (spot)	calibrated pH probe

Table 2.2.5 continued : Emission limits to water and monitoring				
W2	Total metals (Zn, Cr, Pb, Cu, Ni) (mg/l)	0.5	Each discrete discharge (spot)	BS 6068: section 2.60 1998
W2	Total mercury (mg/l)	0.005	Each discrete discharge (spot)	Note 1
W3	Suspended solids (mg/l)	30	Each discrete discharge (spot)	ISO 11929:1997, EN872
W3	COD (mg/l)	250	Each discrete discharge (spot)	ISO 6060:1989
W3	pH range	6 – 9	Each discrete discharge (spot)	calibrated pH probe
W3	Total metals (Zn, Cr, Pb, Cu, Ni) (mg/l)	0.5	Each discrete discharge (spot)	BS 6068: section 2.60 1998
W3	Total mercury (mg/l)	0.005	Each discrete discharge (spot)	Note 1

Note 1: Using the following hierarchy of methods:- CEN if available, ISO if available, BS if available, US EPA if available, other validated method.

Note 2: The Operator may employ other alternative monitoring techniques for specific release points and determinands where this is agreed in writing in advance by the Agency. Any such alternative monitoring methods shall be those specified in section 2.10 of the Application, unless otherwise agreed in writing in advance by the Agency. Any such request by the Operator to use alternative monitoring methods shall specify a limited time period only, after which the methods detailed in Table 2.2.5 shall be used.

2.2.2.5 A release from release point W1 shall only be made in rainfall conditions such that the collecting pit serving the effluent treatment plant is full and the capacity of the effluent treatment plant is fully utilised and discharges to sewer from release points S1 and S2 are being made at the maximum consented rates.

2.2.2.6 A release from release points W2 or W3 shall only be made in rainfall conditions such that the maximum capacity of the transfer pumps serving the respective collection sumps is exceeded.

Emissions to sewer

2.2.2.7 Emissions to sewer from the specified emission points in Table 2.2.7 shall only arise from the source(s) specified in that Table.

Table 2.2.7 Emission points to sewer		
Emission point reference or description	Source	Sewer
S1 as shown on figure 5 of the site report	Effluent treatment plant	Severn Trent, Ryders Green Rd
S2 as shown on figure 5 of the site report	Surface Water	Severn Trent, Phoenix St

2.2.2.8 The limits for the emissions to sewer for the parameters and emission points set out in Tables 2.2.8 and 2.2.8(a) shall not be exceeded.

Table 2.2.8 : Emission limits and monitoring frequency to sewer. Emissions <u>NOT</u> regulated by Waste Incineration Directive.				
Emission point reference	Substance	Limit (including Reference Period)	Monitoring frequency <i>Note 2</i>	Monitoring method
S1	Total sulphides (as S) (mg/ l)	-	Monthly, using a daily flow weighted composite sample.	<i>Note 1</i>
S1	Suspended solids (mg/ l)	-	daily flow weighted composite sample.	ISO 11929:1997, EN872
S1	COD (kg/ day)	-	daily flow weighted composite sample.	ISO 6060: 1989
S1	pH range	-	daily flow weighted composite sample.	calibrated pH probe
S1	Dithiocarbamates and relate compounds (kg/ day)	-	daily flow weighted composite sample.	<i>Note 1</i>
S1	Total metals (Zn, Cr, PB, Cu, Ni) (mg/ l)	-	Quarterly, using a daily flow weighted composite sample	BS 6068; section 2.62
S1	Total cyanides (as CN) (mg/ l)	10	Quarterly, using a daily flow weighted composite sample.	<i>Note 1</i>
S1	Total mercury (mg/ l)	0.005	Monthly, using a daily flow weighted composite sample.	<i>Note 1</i>
S2	Suspended solids (mg/ l)	-	Quarterly spot sample.	ISO 11929:1997, EN872
S2	COD (kg/ day)	-	Quarterly spot sample.	ISO 6060: 1989
S2	pH range	-	Quarterly spot sample.	calibrated pH probe
S2	Total metals (Zn, Cr, PB, Cu, Ni) (mg/ l)	-	Quarterly spot sample.	BS 6068; section 2.62
S2	Total mercury (mg/ l)	0.005	Quarterly spot sample.	<i>Note 1</i>

Note 1: Using the following hierarchy of methods:- CEN if available, ISO if available, BS if available, US EPA if available, other validated method.

Note 2: The Operator may employ other alternative monitoring techniques for specific release points and determinands where this is agreed in writing in advance by the Agency. Any such alternative monitoring methods shall be those specified in section 2.10 of the Application, unless otherwise agreed in writing in advance by the Agency. Any such request by the Operator to use alternative monitoring methods shall specify a limited time period only, after which the methods detailed in Table 2.2.8 shall be used.

Table 2.2.8 (a) : Emission limits and monitoring frequency to sewer. Waste Incineration Directive (WID) regulated emissions

Emission reference, ^{note 5}	point	Substance	Limit (including Reference Period) ⁴	Monitoring frequency	Monitoring method
S1		Total suspended solids as defined by Directive 91/271/EEC	30mg/l for 95% of all measured values of periodic or flow proportional samples taken over one year. ¹	Daily	BS EN 872
S1		Total suspended solids as defined by Directive 91/271/EEC	45mg/l Periodic or flow proportional sample. ¹	Daily	BS EN 872
S1		Mercury and its compounds, expressed as mercury (Total Hg)	0.03 mg/l 24-hour flow proportional sample ²	Monthly	BS EN 13506
S1		Cadmium and its compounds, expressed as cadmium (Total Cd)	0.05 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.89
S1		Thallium and its compounds, expressed as thallium (Total Tl)	0.05 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.89
S1		Arsenic and its compounds, expressed as arsenic (Total As)	0.15 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Lead and its compounds, expressed as lead (Total Pb)	0.2 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Chromium and its compounds, expressed as chromium (Total Cr)	0.5 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Copper and its compounds, expressed as copper (Total Cu)	0.5 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Nickel and its compounds, expressed as nickel (Total Ni)	0.5 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Zinc and its compounds, expressed as Zinc (Total Zn)	1.5 mg/l 24-hour flow proportional sample ²	Monthly	BS 6068-2.60
S1		Dioxins/ furans (I-TEQ)	0.3 ng/l 24-hour flow proportional sample ³	Bi-annual	USEPA Method 1613
S1		Mercury	0.005 mg/l spot sample	Monthly	BS EN 1483:

Table 2.2.8 (a) : Emission limits and monitoring frequency to sewer. Waste Incineration Directive (WID) regulated emissions

Emission reference, ^{note 5}	point	Substance	Limit (including Reference Period) ⁴	Monitoring frequency	Monitoring method
					1997 or SCA blue book 10 ISBN 0117513261

Note 1: Total suspended solids limits apply as periodic daily samples OR 24hr flow proportional sample.

Note 2: Only 5% of annual samples (where more than 20 samples are taken) may exceed the limits stated above.

Note 3: 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 4: Compliance with the limits can be demonstrated by mass balance calculation as defined in Guidance on Directive 2000/76/EC on the Incineration of Waste, Edition 2, August 2004, Section 4.4.

Note 5: Sampling for compliance with the limits contained within Table 2.2.8(a) may be conducted local to the incinerator plant, if such a sampling location has been agreed in writing by the Agency.

2.2.2.9 No condition applies

2.2.2.10 No condition applies

2.2.3 Emissions to groundwater

2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall use BAT to prevent or where that is not practicable to reduce emissions to groundwater 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.

2.2.4 Fugitive emissions of substances to air

- 2.2.4.1 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.
- 2.2.4.2 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.

2.2.5 Fugitive emissions of substances to water and sewer

- 2.2.5.1 Subject to condition 2.2.5.2 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.
- 2.2.5.2 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.

2.2.6 Odour

- 2.2.6.1 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
 - restricting odorous activities
 - 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.

2.2.7 Emissions to Land

- 2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

- 2.2.7.2 No emission from the Permitted installation shall be made to land.
- 2.2.7.3 The Operator shall produce a report on the condition of the effluent drainage system over the previous calendar year, by 31 January each year. The report shall contain details of inspections made, faults noted and repairs completed.

2.2.8 Equivalent Parameters or Technical Measures

- 2.2.8.1 The Operator shall comply with the requirements specified in Table 2.2.11, which supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations.

Table 2.2.11 Equivalent parameters and technical measures	
Parameter or measure	Requirement or description of measure, and frequency if relevant
Control of emissions to Controlled Waters from release points W1, W2 and W3	A release from release point W1 shall only be made in rainfall conditions such that the collecting pit serving the effluent treatment plant is full and the capacity of the effluent treatment plant is fully utilised and discharges to sewer from release points S1 and S2 are being made at the maximum consented rates. A release from release points W2 or W3 shall only be made in rainfall conditions such that the maximum capacity of the transfer pumps serving the respective collection sumps is exceeded.
Control of Incinerator plant with regard to wastes processed and conditions employed	The incinerator waste heat boiler shall only be by-passed for the purpose of carrying out essential maintenance, or as a safety measure in emergency situations. When the incinerator waste heat boiler is operating on bypass, non-exempt hazardous wastes shall not be fed to the incinerator.
Bottom ash burn-out quality	The Permitted Installation shall be operated to ensure that the bottom ash from the incinerator plant shall have a total organic carbon (TOC) content of less than 3%, or a loss on ignition (LOI) value of less than 5% of the dry weight of the ash.
Waste sodium hydroxide quality. Control of Emissions to S1	Each batch of waste sodium hydroxide received shall be analysed with regard to substances having emission limit values for emission point S1.. Any sodium hydroxide, the use of which in the effluent plant could reasonably be expected to result in breaches of emission limits, shall not be used.

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 if such event occur;
 - 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.

2.5 Waste Storage and Handling

- 2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on site 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.

2.6 Waste recovery or disposal

- 2.6.1 Waste produced at the Permitted Installation shall be recovered to no lesser extent than described in the Application and the Application for Variation GP3832SM and the Application for Variation NP3936ME and where not recovered, it shall be 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 and the Application for Variation GP3832SM and the Application for Variation NP3936ME.
- 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 identify the best practicable environmental options for waste disposal.
- 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 Bottom ash and APC residues shall not be mixed
- 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.

Table 2.6.1 : Emission limits and monitoring frequency for solid residues

Emission point reference	Substance	Limit (including Reference Period)	Monitoring frequency	Monitoring method
Bottom Ash	LOI	5%	At shut down but not more than once every 90 days.	Agency ash sampling protocol.

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 H2 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:
- 2 equipment maintenance, e.g. of fans, pumps, motors, conveyors and mobile plant;
 - 3 use and maintenance of appropriate attenuation, e.g. silencers, barriers, enclosures;
 - 4 timing and location of noisy activities and vehicle movements;
 - 5 periodic checking of noise emissions, either qualitatively or quantitatively; and
 - 6 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, 2.2.3, 2.2.3a, 2.2.5, 2.2.8, 2.2.8(a) 2.6.1, 2.10.1 and 2.10.1(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 The Operator shall carry out environmental or other specified monitoring to the frequencies and methods described in Tables 2.10.1 and 2.10.1(a).

Table 2.10.1 : Other monitoring requirements . <u>NOT</u> related to Waste Incineration Directive.				
Emission point	Substance or parameter	Monitoring frequency	Monitoring method <i>Note 1</i>	Other specifications
W1	<i>number of discharge events</i>	<i>when discharge is made from emission point W1</i>		
W1	<i>volume of water discharged</i>	<i>when discharge is made from emission point W1</i>	SCA estimation of flow and load, ISBN 011752364X	
W2	<i>number of discharge events</i>	<i>when discharge is made from emission point W2</i>		
W2	<i>volume of water discharged</i>	<i>when discharge is made from emission point W2</i>	SCA estimation of flow and load, ISBN 011752364X	
W3	<i>number of discharge events</i>	<i>when discharge is made from emission point W3</i>		
W3	<i>volume of water discharged</i>	<i>when discharge is made from emission point W3</i>	SCA estimation of flow and load, ISBN 011752364X	

Note 1: The Operator may employ other alternative monitoring techniques for specific release points and determinands where this is agreed in writing in advance by the Agency. Any such alternative monitoring methods shall be those specified in section 2.10 of the Application, unless otherwise agreed in writing in advance by the Agency. Any such request by the Operator to use alternative monitoring methods shall specify a limited time period only, after which the methods detailed in Table 2.10.1 shall be used.

Table 2.10.1(a) : Other monitoring requirements (WID Specific)

Emission point reference or source or description of point of measurement	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
Sampling Point A1(a) , A1(e)	temperature	continuous	As described in the Application	
Sampling Point A1(a) , A1(e)	pressure	continuous	As described in the Application	
Sampling Point A1(a) , A1(e)	oxygen content	continuous	As described in the Application	
Sampling Point A1(a) , A1(e)	Dioxin-like PCBs (WHO-TEQ ² Humans / Mammals)	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Sampling Point A1(a) , A1(e)	Dioxin-like PCBs (WHO-TEQ ² Fish)	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Sampling Point A1(a) , A1(e)	Dioxin-like PCBs (WHO-TEQ ² Birds)	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Sampling Point A1(a) , A1(e)	Poly-cyclic aromatic hydrocarbons (PAHs)	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.	
Sampling Point A1(a) , A1(e)	Dioxins / furans (WHO-TEQ Humans / Mammals) ²	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Sampling Point	Dioxins / furans (WHO-TEQ Fish)	Bi-annual periodic	To be	

Table 2.10.1(a) : Other monitoring requirements (WID Specific)

Emission point reference or source or description of point of measurement	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
A1(a) , A1(e)	²	measurement ¹ , average value over sample period of between 6 and 8 hours.	determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
Sampling Point A1(a) , A1(e)	Dioxins / furans (WHO-TEQ Birds) ²	Bi-annual periodic measurement ¹ , average value over sample period of between 6 and 8 hours.	To be determined utilising sampling and analytical techniques developed for dioxins/furans (BS EN 1948)	
APC Residues, Incinerator	Metals (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 Agency ash sampling protocol.	
APC Residues, Incinerator	Total soluble fraction and metals (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.	
Bottom Ash, Incinerator, Boiler #2	Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	At shut down but not more than once every 3 months	Sampling and analysis as per Agency ash sampling protocol.	
Bottom Ash, Incinerator, Boiler #2	Total soluble fraction and metals (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.	
Close to the Combustion Chamber inner wall, Incinerator, Boiler #2	Temperature (° C)	Continuous	Traceable to National Standards	

Note 1: No condition applies.

- Note 2: 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.
- 2.10.3 No condition applies
- 2.10.4 No condition applies
- 2.10.5 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.
- 2.10.6 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.
- 2.10.7 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit and the environmental or other monitoring specified in condition 2.10.2 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing.
- 2.10.8 There shall be provided:
- 2.10.8.1 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
- 2.10.8.2 safe means of access to other sampling/monitoring points when required by the Agency.
- 2.10.9 The Operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, unless otherwise agreed in writing by the Agency.
- 2.10.10 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:
- 2.10.10.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and
- 2.10.10.2 report that site reference data to the Agency,
- unless otherwise agreed in writing by the Agency.
- 2.10.11 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in Tables 2.2.3 and 2.2.3a, 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.
- 2.10.12 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in Tables 2.2.3 and 2.2.3a, the Operator shall perform an Annual Surveillance Test (AST) at least annually, as specified within BS EN 14181.

- 2.10.13 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit and the environmental or other monitoring specified in condition 2.10.11 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 2.2.3. 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.

2.11 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 No transfers to effluent treatment plant are controlled under this part of this Permit.

3 Records

- 3.1 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 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the 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 Tables S2 and S2a to Schedule 2;
 - 4.1.2.2 for the reporting periods specified in Tables S2 and S2a to Schedule 2 and using the forms specified in Tables 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
 - 4.1.2.4 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 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.
- 4.1.5 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.
- 4.1.6 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.
- 4.1.7 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.
- 4.1.8 The Operator shall maintain the Site Protection and Monitoring Programme (SPMP) submitted under condition 4.1.7, and shall carry out regular reviews of it. 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.

- 4.2 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 Tables S3 and S3 (a) to Schedule 3.

5 Notifications

5.1.1 The Operator shall notify the Agency **without delay** of:-

- 5.1.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;
- 5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution;
- 5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and
- 5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution.
- 5.1.1.5 any incident which has led to a period of abnormal operation of incineration or co-incineration plant, as defined in Section 6 Interpretation

5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-

- 5.1.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
- 5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;
- 5.1.2.3 for notifications of incidents of abnormal operations under condition 5.1.1.5, only the information listed in Part C of that Schedule;

and such information shall be in accordance with 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 4.1.7 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 Operator shall notify the Agency in writing of any known or planned introduction or material change in respect to emissions from the permitted installation to controlled water or sewer, that may increase or introduce into the effluent any "dangerous substance" as defined in List I and List II of the Dangerous Substances Directive 76/464/EEC and its daughter directives.

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.

“APC residues” means air pollution control residues

“Application” means the application for this Permit, dated 10/09/03, together with written responses to requests for further information, provided by the Operator dated 04/05/04, 15/06/04, 06/07/04 (two letters), 29/07/04, 04/08/04 and 02/09/04 for consideration in the determination of the Permit.

“Application for Variation GP3832SM” means the Application received on 01/04/05 and any additional information received from the Operator in writing.

“Application for Variation NP3936ME” means the Application received on 21/12/06 and any additional information received from the Operator in writing.

“Application for Variation GP3734UK” means the Application received on 03/05/07 and any additional information received from the operator in writing.

“Application for Variation WP3238XB” means the Application received on 04/02/08 and any additional information received from the operator in writing.

“Application for Variation MP3136GV” means the application received on 16/02/09 and any additional information received from the operator in writing.

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

- 7 water supplied to the site; or
- 8 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
- 9 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.

“*Bottom Ash*” means ash residues that accumulate in the waste heat boiler or in boiler number 2 during waste burning.

“*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;

“*Daily average*” for releases of substances to air means the average of all the half-hourly averages 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.

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

“*ELV*” means emission limit value.

“*Exempt hazardous waste*” shall refer to hazardous waste which meets the requirements for exclusion contained in Article 2(1) of Council Directive 94/67/EC of 16 December 1994 on the incineration of hazardous waste. “*Non exempt hazardous waste*” shall have a corresponding meaning.

“*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.

“*Hazardous waste*” means any solid or liquid waste as defined in Article 1(4) of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste. “*Non hazardous waste*” shall have a corresponding meaning.

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

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

“*ISO*” means International Standards Organisation.

“*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.

“ $L_{Aeq,T}$ ” means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

“ $L_{A90,T}$ ” means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

“ L_{AFmax} ” 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

“*PM₁₀, PM_{2.5}, PM_{1.0}*,” mean respectively those particulates which have mean particle diameters of 10, 2.5 and 1.0 microns (µm)

“*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.

“*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.

“*Shut down*” means any period where the plant is being returned to a non-operational state and there is no waste being burned as described in the Application..

“*Special VOCs*” means VOCs defined as ‘high’ by ‘The Categorisation of Volatile Organic Compounds’, reports ref. HMIP/CPR2/41/1/92 and HMIP/CPR2/41/1/183

“*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*” means 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 as described in the Application.

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

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

- “*Waste Incineration Directive*” means Directive 2000/76/EC on the incineration of waste.

“*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, 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.

TEF schemes for dioxins and furans				
Congener	I-TEF(1990)	WHO-TEF (1997/8)		
		Humans / Mammals	Fish	Birds
Dioxins				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0001	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.05	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.5	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1

1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8_HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0001	0.0001	0.0001

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

Schedule 1 - Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

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 PPC Regulations.

Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media	Best estimate of the quantity or the rate of emission	Time during which the emission took place

Measures taken, or intended to be taken, to stop the emission	
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Part B

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 or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Robinson Brothers Limited

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 st ½ hour	2 nd ½ hour	3 rd ½ hour	4 th ½ hour	5 th ½ hour	6 th ½ hour	7 th ½ hour	8 th ½ hour

Name*	
Post	
Signature	
Date	

Authorised to sign on behalf of Robinson Brothers Limited

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.

Table S2: Reporting of monitoring data NOT relating to the Waste Incineration Directive.				
Parameter	Emission points ^{Note 1}	Reporting period	Period begins	Notes
Amines (as dimethylamine)	RA6V19, RA6V20, RA6V28, RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Ammonia	NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Annual	01/10/04	
Amines (as dimethylamine)	NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9,	Annual	01/10/04	
Ammonia	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Hydrogen chloride	NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Annual	01/10/04	
Hydrogen chloride	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Class B VOCs (as C)	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Class B VOCs as toluene	GO1	Quarterly	01/10/04	
Class A VOCs	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
'Special' VOCs	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Particulate matter	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process

Table S2: Reporting of monitoring data NOT relating to the Waste Incineration Directive. Continued

Carbon disulphide	NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Annually	01/10/04	
Carbon disulphide	RA6V19, RA6V20, RA6V28, RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Organic sulphides and mercaptans	GO1, RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Hydrogen sulphide	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Boron Trifluoride	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Fluorine	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Chlorine	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Bromine	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Hydrogen fluoride	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Hydrogen bromide	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Hydrogen cyanide	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Oxides of nitrogen	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process

Table S2: Reporting of monitoring data NOT relating to the Waste Incineration Directive. Continued				
Phosgene	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Oxides of sulphur	RRPV12	Quarterly	01/10/04	Monitoring for point RRPV12 may be required for more than one process
Acrylonitrile	NP2V1, NP2V2, NP5V10, NP7V5, NP8V8, NP8V9	Annually	01/10/04	
Particulate Matter	A1(a)	Quarterly	01/10/04	Note 2
Total organic carbon	A1(a)	Quarterly	01/10/04	Note 2
Hydrogen chloride	A1(a)	Quarterly	01/10/04	Note 2
Sulphur dioxide	A1(a)	Quarterly	01/10/04	Note 2
Oxides of nitrogen	A1(a)	Quarterly	01/10/04	Note 2
Carbon dioxide	A1(a)	Quarterly	01/10/04	Note 2
Hydrogen fluoride	A1(a)	Six monthly	01/07/04	Note 2
Carbon disulphide	A1(a)	Six monthly	01/07/04	
Hydrogen sulphide	A1(a)	Six monthly	01/07/04	
Organic sulphides and mercaptans	A1(a)	Six monthly	01/07/04	
Suspended solids	W1, W2, W3, S1, S2	Quarterly	01/10/04	
COD	W1, W2, W3, S1, S2	Quarterly	01/10/04	
pH range	W1, W2, W3, S1, S2	Quarterly	01/10/04	
Total metals (Zn, Cr, Pb, Cu, Ni)	W1, W2, W3, S1, S2	Quarterly	01/10/04	
Total mercury	W1, W2, W3, S1, S2	Quarterly	01/10/04	
Total discharge in quarter	W1, W2, W3	Quarterly	01/10/04	
No. of discharges in quarter	W1, W2, W3	Quarterly	01/10/04	
Total sulphides	S1	Quarterly	01/10/04	
Dithiocarbamates	S1	Quarterly	01/10/04	
Total cyanides	S1	Quarterly	01/10/04	
Waste Disposal and Recovery		Annual	01/01/04	
Water Usage		Annual	01/01/04	
Energy Usage		Annual	01/01/04	
Performance Indicators		Annual	01/01/04	

Note 1: Releases made under Project Briefing Notes to other release points must also be monitored, see table 2.2.2 and reporting forms A17 and A18.

Note 2: Reporting only required if the data is not fully captured within the WID reporting forms

Table S2(a): Reporting of monitoring data. (WID)			
Parameter	Emission point	Reporting period	Period begins
Sulphur dioxide mg m ⁻³	A1(a), A1(e)	Every 6 months	28/12/05
TOC	A1(a), A1(e)	Every 6 months	28/12/05

Table S2(a): Reporting of monitoring data. (WID)

Parameter	Emission point	Reporting period	Period begins
<i>mg m⁻³</i>			
Oxides of nitrogen	A1(a) , A1(e)	Every 6 months	28/12/05
<i>mg m⁻³</i>			
Gaseous chlorides as HCl	A1(a, A1(e))	Every 6 months	28/12/05
<i>mg m⁻³</i>			
Gaseous fluorides as HF	A1(a) , A1(e)	Every 6 months	28/12/05
<i>mg m⁻³</i>			
Particulates	A1(a) , A1(e)	Every 6 months	28/12/05
<i>mg m⁻³</i>			
Carbon Monoxide	A1(a) , A1(e)	Every 6 months	28/12/05
<i>mg m⁻³</i>			
Cadmium & Thallium and their compounds (total)	A1(a) , A1(e)	Every 6 months.	28/12/05
Mercury and its compounds	A1(a) , A1(e)	Every 6 months.	28/12/05
Antimony, Arsenic, Lead, Chromium, Cobalt, Copper, Manganese, Nickel and Vanadium and their compounds (total)	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxins / furans (I-TEQ)	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxin-like PCBs (WHO-TEQ Fish)	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxin-like PCBs (WHO-TEQ Birds)	A1(a) , A1(e)	Every 6 months.	28/12/05
Poly-cyclic aromatic hydrocarbons (PAHs)	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxins / furans (WHO-TEQ Humans / Mammals) ²	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxins / furans (WHO-TEQ fish) ²	A1(a) , A1(e)	Every 6 months.	28/12/05
Dioxins / furans (WHO-TEQ birds) ²	A1(a) , A1(e)	Every 6 months.	28/12/05
Temperature	A1(a) , A1(e)	As requested by Agency site inspector.	28/12/05
Pressure	A1(a) , A1(e)	As requested by Agency site inspector.	28/12/05
Oxygen content	A1(a) , A1(e)	As requested by Agency site inspector.	28/12/05
Furnace Chamber Temperature	A1(a) , A1(e)	As requested by Agency site inspector.	28/12/05
Wind Speed and Direction	Site	As requested by Agency site inspector.	28/12/05
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	APC Residues	Every 6 months.	28/12/05

Table S2(a): Reporting of monitoring data. (WID)

Parameter	Emission point	Reporting period	Period begins
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	APC Residues, Incinerator	Before use of a new disposal or recycling route	28/12/05
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Bottom Ash, Incinerator and boiler 2	At shut down (not more than quarterly)	28/12/05
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Bottom Ash, Incinerator and boiler 2	At shut down (not more than quarterly)	28/12/05
LOI (Alternative to TOC)	Bottom Ash , Incinerator and boiler 2	At shut down (not more than quarterly)	28/12/05
Total Suspended solids	S1	6 monthly	28/12/05
Mercury and its compounds (flow proportional)	S1	6 monthly	28/12/05
Mercury and its compounds (monthly spot)	S1	6 monthly	28/12/05
Cadmium and its compounds	S1	6 monthly	28/12/05
Thallium and its compounds	S1	6 monthly	28/12/05
Arsenic and its compounds	S1	6 monthly	28/12/05
Lead and its compounds	S1	6 monthly	28/12/05
Chromium and its compounds	S1	6 monthly	28/12/05
Copper and its compounds	S1	6 monthly	28/12/05
Nickel and its compounds	S1	6 monthly	28/12/05
Zinc and its compounds	S1	6 monthly	28/12/05
Dioxins and Furans (I-teq)	S1	6 monthly	28/12/05

Schedule 3 - Forms to be used

Table S3: Reporting Forms NOT relating to Waste Incineration Directive

Media / parameter	Form Number	Date of Form
<i>Air</i>	<i>A1 to A16</i>	<i>20/02/08</i>
<i>Water (excluding sewer)</i>	<i>W1, W2, W3</i>	<i>31/08/04</i>
<i>Sewer</i>	<i>S1</i>	<i>20/02/08</i>
<i>Energy</i>	<i>E1</i>	<i>31/08/04</i>
<i>Waste Return</i>	<i>R1</i>	<i>31/08/04</i>
<i>Water usage</i>	<i>WU1</i>	<i>31/08/04</i>
<i>Performance indicators</i>	<i>PI1</i>	<i>31/08/04</i>

Table S3(a): Reporting Forms Specific to WID

Media or parameter	Form Number	Date of Form
<i>Air (Point A1(a))</i>	<i>Agency form GP3832SM/A1 Periodic</i> <i>Agency form GP3832SM/A2 Particulates</i> <i>Agency form GP3832SM/A3 Hydrogen chloride</i> <i>Agency form GP3832SM/A4 TOC</i> <i>Agency form GP3832SM/A6 Carbon monoxide</i> <i>Agency form GP3832SM/A7 Sulphur dioxide</i> <i>Agency form GP3832SM/A8 Nitrogen oxides</i>	<i>22/12/05</i>
<i>Air (Point A1(e))</i>	<i>Agency form BS4316/A9 Periodic</i> <i>Agency form BS4316/A10 Particulates</i> <i>Agency form BS4316/A11 TOC</i> <i>Agency form BS4316/A12 Hydrogen Chloride</i> <i>Agency form BS4316/A13 Carbon monoxide</i> <i>Agency form BS4316/A14 Sulphur dioxide</i> <i>Agency form BS4316/A15 Nitrogen oxides</i> <i>Agency form BS4316/A16 Hydrogen Fluoride</i>	<i>2/01/07</i>
<i>Waste Disposal and Recovery</i>	<i>Agency form GP3832SM/WDR1</i>	<i>22/12/05</i>
<i>Sewer (point S1)</i>	<i>Agency form BS4316/ S1</i>	<i>07/03/07</i>
<i>Ash Composition</i>	<i>Agency form BS4316/Ash1</i>	<i>02/01/02</i>
<i>Ash solubility</i>	<i>Agency form BS4316/Ash2</i>	<i>02/01/07</i>

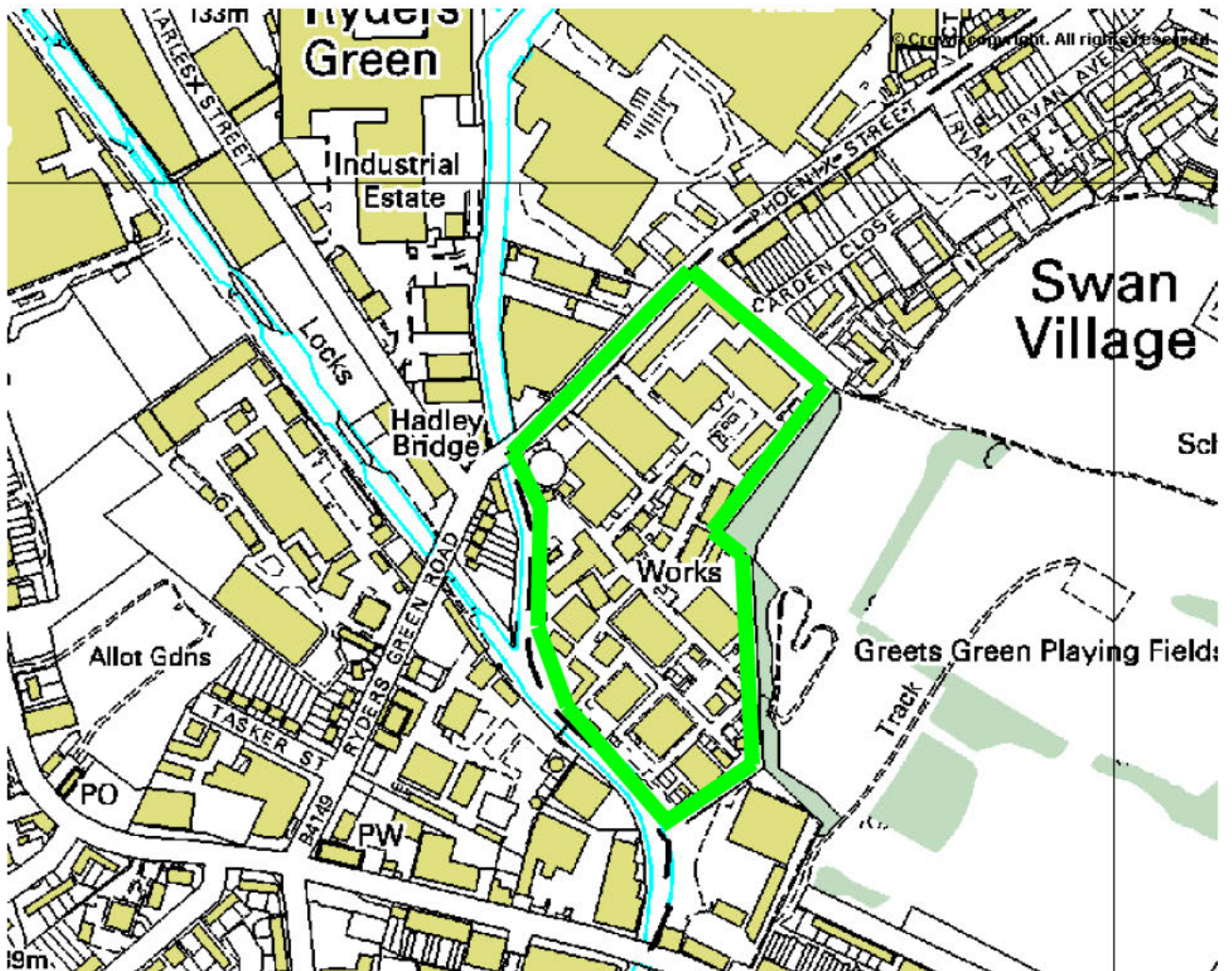
Schedule 4 - Reporting of performance data

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.

<i>production of organic chemicals involving carbon disulphide</i>	<i>tonnes</i>
<i>production of organic chemicals involving amines</i>	<i>tonnes</i>
<i>production of organic chemicals involving hydrogenation</i>	<i>tonnes</i>
<i>production of organic chemicals involving the use of organic acids</i>	<i>tonnes</i>
<i>production of organic chemicals involving the use or liberation of halogens</i>	<i>tonnes</i>
<i>production of organic chemicals involving the liberation of hydrogen sulphide</i>	<i>tonnes</i>
<i>production of other organic chemicals</i>	<i>tonnes</i>
<i>total organic production (sum of above) TOP</i>	<i>tonnes</i>
<i>gas odorant blended</i>	<i>tonnes</i>
<i>solvents and other liquid fuels incinerated</i>	<i>tonnes</i>

Parameter		Frequency of assessment	Performance indicator
<i>Annual number of external odour complaints</i>			
<i>COD to controlled water/ tonne TOP</i>			
<i>COD to sewer/ tonne TOP</i>			
<i>Waste Disposal Score</i>			
<i>Waste Hazard Score</i>			

Schedule 5 - Site Plan



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Schedule 6 - List of Permitted Wastes

Description	European Waste Catalogue Number (where available) or other specification	Waste type as defined in Table 2.1.2
<i>Range of aqueous liquids, solvents and reaction residues from chemical manufacturing and distribution processes. Emission point A(1)(a)</i>	EWC 05 07 02, 07 01 01, 07 01 03, 07 01 04, 07 01 07, 07 01 08, 07 07 01, 07 07 03, 07 07 04, 07 07 07, 07 07 08, 07 05 01, 07 05 03, 07 05 04 07 05 07, 07 05 08, 16 07 09, 19 02 08 and 19 02 11	
<i>Range of non-halogenated organic materials. Emission point A(1)(e)</i>	EWC 05 07 02, 07 01 01, 07 01 04 07 01 08, 07 07 01, 07 07 04, 07 07 08, 07 05 01, 07 05 04, 07 05 08, 16 07 09, 19 02 08 and 19 02 11	
<i>Range of waste sodium hydroxide liquors for use as reagent on effluent plant. Emission point S1.</i>	06 02 04, 07 01 01, 07 01 11, 07 01 12, 07 01 99, 07 02 01, 07 02 11, 07 02 12, 07 02 99, 07 03 01, 07 03 11, 07 03 12, 07 03 99, 07 04 01, 07 04 11, 07 04 12, 07 04 99, 07 05 01, 07 05 11, 07 05 12, 07 05 99, 07 06 01, 07 06 11, 07 06 12, 07 06 99, 07 07 01, 07 07 11, 07 07 12, 07 07 99,	
<i>Aqueous wastes from distribution of gas odorant products for disposal through effluent treatment plant</i>	05 07 02, 16 07 09	

END OF VARIATION NOTICE