



**ENVIRONMENT
AGENCY**

Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

*Rassau Recycling Facility
EnviroWales Ltd.
Rassau Industrial Estate
Ebbw Vale
Blaenau Gwent
NP23 5SD*

Permit number

EP 3230 BW

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Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Section 2.2 A(1) (a) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

Section 2.2 A(1)(a) - "Unless falling within Part A(2) of this Section, producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities. "

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

In some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to relevant sections of the IPPC Sector guidance, appropriate Horizontal guidance and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows.

The site is located in an industrial estate to the north of Ebbw Vale, South Wales. The location was previously undeveloped land within the confines of Rassau Industrial Estate and planning permission for the development of the installation has been applied for.

The purpose of the process, which is the subject of this PPC permit, is to recover, from lead containing materials, lead and other commercially valuable components. Raw materials containing lead include, lead-acid batteries, lead scrap both from the battery manufacturing industry and other sources. Also, lead dross both from external sources and dross generated internally as well as lead bearing dusts and sludge generated by the process itself. The final products from the process include lead ingots and slabs. The process is estimated to have a gross throughput of 85,000 tonnes per annum (70,000 tonnes lead from lead-acid batteries and 15,000 tonnes of lead from scrap lead materials), producing circa 56,000 tonnes of lead.

The sub processes within the installation are:

- (i) Raw materials delivery and storage
- (ii) Battery breaking
- (iii) Paste de-sulphurisation
- (iv) Furnace charge preparation
- (v) Smelting
- (vi) Scrap melting
- (vii) Refining
- (viii) Ingot casting
- (ix) Slab casting
- (x) Liquid effluent treatment

The site is purpose-built for the purposes of lead recovery and is fairly remote from residential occupation. Other businesses occupy the industrial estate but currently the installation has few close neighbours. There are three sites within 10km that are of European importance as habitats, the closest being 1.7km away.

Raw Materials Delivery and Storage

Batteries are received on site in 1 tonne polypropylene bins, on wooden pallets and large, 25 tonne metallic skips which are stored in a bunded, undercover area of 1800m² with an acid resistant floor which drains onto the acid recovery area. Drosses are delivered in steel drums and skips, metallic scrap, pastes and oxides are delivered in steel drums or polypropylene bins and stored undercover with scrap lead stored adjacent to the melting and refining kettle. Lead bearing sludge from the effluent treatment plant and dusts collected in the abatement system from the rest of the process are stored within the building before being re-processed within the smelting furnaces.

Other furnace reagents such as sodium carbonate, coke and iron are stored in dedicated bays adjacent to the smelting furnace area. Sodium carbonate is delivered via tanker and stored in silos.

Battery Breaking

Batteries are transferred from the battery storage area to firstly, pre-breaking to remove the majority of sulphuric acid electrolyte, before being further conveyed into a hammer type mills to crush the whole batteries. The crushed material then passes through a series of screens, wet "float/sink" classifiers and filters to obtain separate fractions containing metallic components, lead oxide, sulphate paste, polypropylene, non recyclable plastics and rubber and dilute sulphuric acid. A screw conveyor transfers the metallic materials into the storage areas prior to furnace charging. The other components are fed onto a screen mesh belt where the suspended paste and some residual fine metallic lead materials are settled out and removed by screw conveyor to a filter press before being stored adjacent to the smelting area.

Any liquid generated by this process is transferred to the effluent treatment plant via the floor drains.

Polypropylene is separated from other plastic or Bakelite compounds before being transferred to store via screw conveyor. PVC separators from the batteries are washed before being sent to landfill.

The battery breaking plant and building is subject to local exhaust ventilation that vents to air via a wet scrubber at Stack A1 at a height of 15m. The liquor arising from this scrubber is treated at the effluent treatment plant.

Paste de-sulphurisation

Battery paste is dewatered through a filter press before storage. Paste is then de-sulphurised using sodium carbonate and the drained acid collected during pre-crushing and battery breaking, before being stored ready for smelting. The resultant sodium sulphate from the process is then sold.

Furnace Charge Preparation

Furnace charges will be collected from the respective storage bays within the main building. The charge will consist of lead bearing materials and various reagents and will be transported to and charged into the furnace by a front-loading charger incorporating a semi-circular rotating scoop.

The scoop rotates within the furnace to deposit the charge therein. The charging area at the mouth of the furnace will be kept under negative pressure throughout the charge to minimise dust emissions. The local exhaust ventilation system for the area vents to a bag filter abatement system, which discharges via stack A2, at a height of 30m.

Smelting

There is one rotary furnace on site, of 9-10m³ (45 tonnes nominal capacity) designated RF No.1. The furnace is batch charged with the front loading charger and rotating scoop as described above. The furnace area is kept under negative pressure throughout the charging and operational cycle, with hot gases vented through an extraction hood to a bag filter abatement system. Gases are directed through a drop-out chamber where larger dust particles are collected and where the flue gases are cooled with hygiene air to less than 120°C before filtration in the reverse pulse jet bag filter plant. A bag filter serves the furnace and then vents to air via stack A2, 30m in height. Particulate material collected in the bag filters is recycled in the process.

The furnaces are fired with oxygen enriched, natural gas burners, which reduce emissions to air from the combustion process.

Lead bullion, slag and dross are tapped from the furnace. Dross is separated from the slag and stored before re-processing, slag is transported to the storage area via a slag bin carried by forklift truck, whilst lead bullion is transferred to the refining kettles in molten or solid form in bullion vessels of 2 to 3 tonnes nominal capacity. Slag is stored in a dedicated storage bay and any dust within the area is collected by a local exhaust ventilation system which is vented to a bag filter abatement plant and then to atmosphere via Stack A4, 25m in height. Slag is periodically removed from the storage area for transportation to landfill.

Scrap Melting

Lead scrap is held in a dedicated storage bay adjacent to the scrap melting kettle area within the refinery. Clean, dry scrap is transferred by charging skips and is melted in a 75 tonne capacity kettle designated SK1. The scrap melting kettle is fired by low-NOx, natural gas burners which are operated at lower temperatures to preclude lead fume generation, however, the kettle is served by the reverse pulse jet bag filter abatement plant in order to capture any particulate emissions, or fume generated during casting. The bag filter vents to atmosphere via Stack A3, at a height of 30m. Combustion gases are vented to air via stack C1 (A5) at a height of 15m. The melted scrap lead will be pumped in molten form, or transferred in solid form to the refining kettles when specific metallurgical properties are required by the end user.

Refining

The refinery is equipped with 4 natural gas fired kettles, all of 75 tonnes capacity (SK1, RK1, RK2 and RK3), one of which (SK1) is dedicated to scrap melting above, for the purposes of bullion treatment and adjustment into final specification products. The combustion gases from the kettles' low-NOx burners are vented to atmosphere via 4 stacks C2, C3 & C4 (A6, A7 & A8) all at a height of 15m.

Unrefined lead bullion from the furnaces is charged into the kettles in molten or pre-cast form, via overhead crane through an opening in the ventilation hood above each kettle unit. The kettle heats the charge to its melting temperature of 300 - 320°C before the refining operation begins. Reagents are added in order to carry out specific refining operations. Copper is removed at 330 - 350°C whilst Tin and Antimony are removed at 450 - 480°C. Each kettle's local exhaust ventilation system vents to the reverse pulse jet bag filter abatement system and Stack A3, 30m in height. Particulates collected by the bag filters are recycled through the process. Dross is removed manually / mechanically into drums and is then stored and recycled into the process in the case of antimonial or copper drosses, or sold on for recovery of valuable metals.

Casting

Once the lead has been refined to the appropriate specification, a pump is inserted into the kettle and the metal cast into ingots of 25 kg or 45 kg or slabs of up to 10 tonnes as required. The casting shop area is

served by the reverse pulse jet bag filters and HEPA filter system that vents via stack A3. Finished products are stored before removal off-site for sale.

Liquid Effluent Treatment

Liquors generated from the process are transferred via contained drainage systems to the effluent treatment plant. Acidic effluent from the battery breaking area can be treated within the effluent treatment plant, although the primary use for electrolyte drained from the batteries is as a raw material in the paste de-sulphurisation process. Acidic liquors from the battery breaking plant are filtered to remove large solids before a three stage fine filtration process and finally ultra-filtration. The effluent is then transferred to the effluent treatment plant for neutralisation or stored awaiting use in the paste de-sulphurisation process. Water collected via roof drains is transferred for storage within three 200m³ tanks and is re-used as process water supply. Contaminated water from the process, wheel wash and floor washdown activities are all transferred to the effluent treatment plant where large solids are screened out and stored for disposal. The effluent then goes for treatment with sodium hydroxide and a flocculant. Solids generated are screened and pressed into dry filter cake whilst the liquid effluent undergoes ultra-fine filtration before being re-routed back into the process for re-use.

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

Other PPC Permits relating to this installation

Permit holder	Permit Number	Date of Issue
<i>Not Applicable</i>		

Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue
<i>None</i>		

Other activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above.

Other existing Licences/Authorisations/Registrations relating to this site

Holder	Reference Number	Date of issue
<i>Welsh Water Trade Effluent Consent</i>	<i>TE651</i>	<i>01/06/05</i>

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.

To give a Notification under Condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

Status Log

Detail	Date	Response Date
Application EP 3230 BW	Received 12/09/04	Duly Made 13/10/04
Response to request for information	Request dated 21/12/04	Response dated 17/01/05
Request to extend determination	Request dated 22/02/05	Request accepted 23/02/05
Response to request for information	Request dated 03/03/05	Response dated 15/03/05
Request to extend determination	Request dated 23/03/05	Request accepted 24/3/05
Request to extend determination	Request dated 06/04/05	Request accepted 06/04/05
Permit determined	26/04/05	

End of Introductory Note.

Permit

Pollution Prevention and Control
Regulations 2000



**ENVIRONMENT
AGENCY**

Permit

Permit number
EP 3230 BW

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations (SI 2000 No 1973), hereby authorises **EnviroWales Ltd.** ("the Operator"),

Of/ whose Registered Office (or principal place of business) is
**7a Nevil Street
Abergavenny
Monmouthshire
NP7 5AA**

Company registration number 4296277

to operate an Installation at
**Rassau Industrial Estate
Ebbw Vale
Blaenau Gwent
NP23 5SD**

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

Signed	Date
	26 th April 2005

Andrew Gibbs

Authorised to sign on behalf of the Agency

Conditions

1 General

1.1 Permitted Activities

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

Table 1.1.1		
Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
<i>Directly Associated Activity</i>	<i>Receipt of raw materials from suppliers or recovery of raw materials from battery breaking. Preparation and storage of raw materials or process feedstock.</i>	<i>Recovery of raw materials from the battery breaker or receipt on site. Subsequent processing and feeding materials only for the installation smelting, melting or refining processes.</i>
<i>Section 2.2 A(1) (a) : Non-Ferrous Metals</i>	<i>Producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities</i>	<i>Feed of materials and fuels for smelting in the Rotary Furnace, through to discharge of molten lead and discharge from the process stacks</i>
<i>Section 2.2 A(1) b): Non-Ferrous Metals</i>	<i>Melting, including making alloys, of non-ferrous metals including secondary raw materials, recovered lead products, lead scrap, to lead refining.</i>	<i>Operation of all melting and refining activities to produce lead ingots and slab within 4 x 75te refining kettles. Operation of associated abatement equipment and discharge from the process stacks.</i>
<i>Directly Associated Activity</i>	<i>Storage and handling of associated solid and liquid wastes and other lead bearing wastes.</i>	<i>Activities from separation of wastes to despatch or releases from installation.</i>
<i>Directly Associated Activity</i>	<i>Treatment and discharge of process or surface water and site drainage from the installation.</i>	<i>All effluent treatment and any interceptors to point of entry to controlled waters</i>
<i>Directly Associated Activity</i>	<i>Treatment and discharge of foul water from the installation</i>	<i>All effluent treatment to point of entry to foul sewer.</i>

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

Reference	Requirement	Date
IC1	The Operator shall submit in writing to the Agency, a decommissioning plan in accordance with the BAT requirements in Section 2.11 of TGN 2.03.	31/08/2005
IC2	The Operator shall provide an implementation plan for the full transfer of maintenance programmes and records to a computer-based system within 6 months of start-up.	31/08/2005
IC3	The Operator shall have in place an externally audited Environmental Management System having regard to section 2.1 of the IPPC Sector guidance S2.03 or other Technical Guidance, by the date specified.	01/06/2006
IC4	The Operator shall submit a report, in writing, to the Agency reviewing the techniques for continuous measurements for emissions to Air for heavy metals, particularly Lead and Cadmium including cost, availability, accuracy and detection limits. If the report identifies improvement that represent BAT, the report shall contain a timetable for implementing, by 31st December 2006 the improvements identified.	01/06/2006
IC5	The Operator shall report the results of compliance tests for the Rotary Furnace Slag against the UK Waste Acceptance Criteria for Hazardous Waste to the Agency on a quarterly basis. The first report shall be due by the date specified and every three months thereafter.	01/06/2006
IC6	The Operator shall submit a report, in writing, to the Agency reviewing the techniques for continuous measurements for emissions to controlled water and sewer, for suspended solids and heavy metals, particularly Lead and Cadmium including cost, availability, accuracy and detection limits. If the report identifies improvements that represent BAT, the report shall contain a timetable for implementing, by 31st December 2006 the improvements identified.	01/06/2006
IC7	The Operator shall submit a report on the potential concentration and mass release of dioxins and furans into air, water and onto land from the permitted activity. The report shall also contain a timetable for reducing, by 31st December 2006 , emissions of dioxins and furans if the techniques for reduction represent BAT.	01/09/2006
IC8	The Operator shall submit a report, which identifies and quantifies all sources of fugitive emissions from the installation. The report shall describe the environmental impact of fugitive releases and their significance. In particular, fugitive emissions within the charging area shall be investigated and the report shall contain proposals for reducing fugitive emissions within this area if the techniques for reduction represent BAT. The Operator shall submit a report which specifies a timetable for implementation by 30th June 2007 to prevent, or where that is not practicable, reduce the fugitive emissions within the installation.	01/01/2007
IC9	Further detailed dispersion modelling using actual emissions data from the process, shall be carried out for substances that are significant and priority to control, namely particulates as PM ₁₀ , lead and cadmium, compared to relevant environmental benchmarks. The report shall be submitted to the Agency by the date specified. Prior to actual modelling, a report in writing shall be submitted to the Agency covering the modelling proposals and technical parameters using Appendix E of IPPC H1 Horizontal Guidance note, for acceptance by the Agency to ensure robust modelling that is fit for	01/01/2007

purpose.

IC10	<p>Subject to monitoring results for the pollutants listed below from points A1, A2, A3 and A4 exceeding Indicative BAT Benchmark concentrations, the following shall apply.</p> <p>The Operator shall submit a report in writing to the Agency reviewing the options for reducing the emissions of the pollutants listed below so they shall not exceed the Indicative BAT benchmark concentration indicated as standard conditions;</p> <ul style="list-style-type: none">i) Lead 2 mg Nm⁻³ii) Particulate as PM₁₀ 5 mg Nm⁻³iii) Copper, lead, nickel and their compounds (as metal) 2 mg Nm⁻³iv) Antimony, tin and tellurium and their compounds (as metal) 2 mg Nm⁻³v) Cadmium, arsenic mercury, thallium and selenium and their compounds (as metal) 0.5 mg Nm⁻³vi) Dioxins (ITEQ) 0.1 ng Nm⁻³ <p>If one of the options represents BAT the report shall contain a timetable for implementing that option by 30th June 2007.</p>	01/01/2007
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IC11	<p>Subject to monitoring results for the pollutants listed below from points S1 exceeding Indicative BAT Benchmark concentrations, the following shall apply.</p> <p>The Operator shall submit a report in writing to the Agency reviewing the options for reducing the emissions of the pollutants listed below so they shall not exceed the Indicative BAT benchmark concentration indicated as standard conditions;</p> <ul style="list-style-type: none">i) BOD 10 mg l⁻¹ii) Lead and its compounds (as Pb) 5 mg l⁻¹iii) Cadmium and its compounds (as Cd) 0.25 mg l⁻¹iv) Mercury and its compounds (as Hg) 0.125 mg l⁻¹v) Arsenic and its compounds (as As) 2.5 mg l⁻¹vi) Zinc and its compounds (as Zn) 12.5mg l⁻¹vii) Total hydrocarbon oil 2mg l⁻¹ <p>The report must not only assess abatement options, but bias towards prevention at source through the supply chain and procurement, especially all rogue battery types and the effectiveness of the pre-sorting activity prior to battery breaking. If one of the options represents BAT the report shall contain a timetable for implementation by 30th June 2007.</p>	01/01/2007
<hr/>		
IC12	<p>The Operator shall, within 12 months of start-up, carry out a full review of the Environmental Impact Assessment using actual emission data and with regard to the current H1 Environmental Impact Assessment Guidance. The impact of the process on air, land, sewer and water shall be assessed and compared with background and benchmark levels. The report shall contain a programme for minimising any impacts that are found to be significant, to a level of insignificance, by 30th June 2007.</p>	01/01/2007
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IC13	<p>Based on the results of IC9, the Operator shall submit in writing to the</p>	01/04/2007

Agency a Management Plan. This will ensure that the Authorised process meets the UK National Air Quality Strategy Objective and EC-Daughter Directive Standards from 2005 and by 2010 for Particulates (PM₁₀) and from 2005 and by 2008 for Lead having taken account of general background concentration in the atmosphere and modelling proposed in IC5 above.

The Management Plan shall define:

1. The current environmental impact compared to the objectives and standards.
 2. If relevant what firm plans are being developed and by when to ensure breaches of objectives do not occur.
 3. What plans are in place to ensure the assessment is updated in light of new environmental data, models and other relevant matters and that the assessment is reviewed on an annual basis.
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- 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 The Permitted Installation shall not be brought into operation until the following measures have been completed and the Agency has been notified in writing of this:

- 1.6.1.1 The Operator shall demonstrate that rotary furnace slag produced by the installation will meet, or better, the Waste Acceptance Criteria for disposal to landfill post 16th July 2005. The Operator shall demonstrate that the leachate tests carried out on the slag sample from Canada are at least equivalent to the United Kingdom leachate test British Standard methodology required for wastes destined for landfill in the United Kingdom and this shall be agreed in writing by the Agency prior to the commencement of operations.
- 1.6.1.2 The Operator shall install and have in full operational condition, a lead-acid battery paste de-sulphurisation plant prior to any smelting of paste taking place.
- 1.6.1.3 The Operator shall install an ambient air monitor at the installation boundary in order to obtain background levels of lead and particulate matter (PM₁₀). Data shall be collected for six months prior to the commencement of operations. The sampling and analysis methodology shall be agreed, in writing with the Agency, prior to commencement of sampling.

1.7 Off-site Conditions

- 1.7.1 No off-site conditions apply

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	The response to questions 2.1 and 2.2 given in pages/section EW-B2.1 to EW-B2.2.11 of the application	12/09/04
Response to Schedule 4 Part 1 Notice	Response to questions contained therein.	17/01/05
Response to Schedule 4 Part 1 Notice	Response to questions contained therein.	15/03/05
Additional Information:	All parts contained within faxes received 16/03/05 regarding rotary furnace slag leachate analysis (Biffa Waste Service and Engitec Ltd. correspondence therein refers)	16/03/05

- 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 The Permitted Installation shall, subject to the other conditions of this Permit, be operated to achieve the Waste Acceptance Criteria at all times for the purposes of disposal of Rotary Furnace Slag in accordance with the response to Questions 2 and 3 (g) of the Schedule 4 Part 1 Notice dated 03/03/05.
- 2.1.4 The Operator shall ensure no Lead bearing raw materials are stored outside buildings except for unloading purposes unless as otherwise agreed in writing by the Agency, justifying the circumstances, the manner and containment. Quantities and duration shall be minimised by BAT, preventing or minimising potentially fugitive releases or releases to land.
- 2.1.5 The Operator shall monitor and record on-site wind speed, direction and the daily rainfall data. These records shall be made available to the Agency on request and kept for a minimum period of one year. In the case of the weather station being out of service for more than 5 days, the Operator shall make arrangements for alternative methods of measurement.

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.

Table 2.2.1 : Emission points to air

Emission point reference or description	Source	Location of emission point
A1	<i>Wet scrubber abatement serving Battery Breaking</i>	<i>Point A1 on site plan</i>
A2	<i>Bag filter abatement plant serving Rotary Furnace RF1</i>	<i>Point A2 on site plan</i>
A3	<i>Bag filter abatement plant serving Refining Kettles RK1-3 and Scrap Melting Kettle SK1</i>	<i>Point A3 on site plan</i>
A4	<i>Bag filter abatement plant serving Slag Treatment and storage area</i>	<i>Point A4 on site plan</i>
A5	<i>Oxy-gas burners for Scrap Melting Kettle SK1</i>	<i>Point C1 on site plan</i>
A6	<i>Oxy-gas burners for Refining Kettle RK1</i>	<i>Point C2 on site plan</i>
A7	<i>Oxy-gas burners for Refining Kettle RK2</i>	<i>Point C3 on site plan</i>
A8	<i>Oxy-gas burners for Refining Kettle RK3</i>	<i>Point C4 on site plan</i>
A9	<i>Lime silo</i>	<i>Point indicating silo on site plan</i>
A10	<i>Sodium Carbonate silo</i>	<i>Point indicating silo on site plan</i>

2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded.

Table 2.2.2 : Emission limits to air and monitoring

Emission point reference	Parameter	Limit (including Reference Period) ¹	Monitoring frequency	Monitoring method Note 2.
A1	Sulphuric Acid mist mg Nm⁻³	1.00 6 Monthly extractive sample	Twice a year	US EPA Method 8
	Minimum interval between extractive monitoring		4 months	
A2	Lead and compounds taken together (as metal) mg Nm⁻³	2.00	Quarterly	BS EN 14385:2004
A3		Monthly average and quarterly extractive sample		
A4				
A1	Total Particulate mg Nm⁻³	5.00	Quarterly	BS EN 13284-1:2002
A2		Monthly AMS (CEM) average and quarterly extractive sample		
A3				
A4		10.00 Maximum daily average provided monthly AMS (CEM) value is met.	Continuous	ISO 10155:1995
A2	Sulphur Dioxide mg Nm⁻³ (Natural Gas Fuel)	500.00	Quarterly	BS 6069-4.4:1993
A3		Monthly AMS (CEM) average and quarterly extractive sample		
		500.00 Maximum daily average provided monthly AMS (CEM) value is met.	Continuous.	BS 6069-4.4:1993
A5	Sulphur Dioxide mg Nm⁻³ (Natural Gas Fuel)	50.00	Twice a year	BS 6069-4.4:1993
A6		6 Monthly extractive sample		
A7				
A8		Minimum interval between extractive monitoring		4 months
A2	Hydrogen Chloride mg Nm⁻³	10.00	Quarterly	BS EN 1911-1:1998
A3		Quarterly extractive sample		
A1	Cadmium and compounds taken together (as element) mg Nm⁻³	0.5	Quarterly	BS EN 14385:2004
A2		Quarterly extractive sample		
A3				
A4				
A1	Copper, lead, nickel, zinc and their compounds taken together (as metal) mg Nm⁻³	2.00	Quarterly	BS EN 14385:2004
A2		Quarterly extractive sample		
A3, A4				

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A1	Antimony, tin, tellurium and their compounds taken together (as element) mg Nm⁻³	2.00		Quarterly	BS EN
A2		Quarterly	extractive		14385:2004
A3		sample			
A4					
A1	Cadmium, arsenic, thallium, selenium, and their compounds taken together (as element) mg Nm⁻³	0.5		Quarterly	BS EN
A2		Quarterly	extractive		14385:2004
A3		sample			
A4					
	Mercury (as element) mg Nm⁻³	0.5		Quarterly	BS EN
		Quarterly	extractive		13211:2001
		sample			
A2	Dioxins and Furans (ITEQ) ng Nm⁻³	0.1		Twice a year	BS EN 1948-
A3		6 Monthly	extractive		1:1997 Parts 1 to
		sample (minimum 4 hours, maximum 8 hours)		4 Months	3
	Minimum interval between extractive monitoring				
A2	Oxides of Nitrogen mg Nm⁻³	100.00		Quarterly	ISO 10849:1996
A3		Monthly AMS (CEM)			
A5		average and extractive			
A6		sample			
A7		200.00		Continuous	ISO 10849:1996
A8		Maximum daily			
		average provided			
		monthly AMS (CEM) value is met.			
A2	Carbon Monoxide mg Nm⁻³	150.00		Quarterly	ISO 12039:2001
A3		Monthly AMS (CEM)			
A5		average and extractive			
A6		sample			
A7		300.00		Continuous	ISO 12039:2001
A8		Maximum daily			
		average provided			
		monthly AMS (CEM) value is met.			
A2	Volatile Organic Compounds (as Carbon) mg Nm⁻³	50.00		Quarterly	BS EN
A3		Monthly AMS (CEM)			12619:1999 or BS
A5		average and extractive			EN 13526:2001
A6		sample			
A7		100.00		Continuous	BS EN
A8		Maximum daily			12619:1999 or BS
		average provided			EN 13526:2001
		monthly AMS (CEM) value is met.			
A9	Particulate mg Nm⁻³	No visible emission		When	
A10				unloading	
				bulk Lime or	
				Sodium	
				Carbonate	

Note 1: See Section 6 for reference conditions

Note 2: Monitoring methodology shall have regard to the current methods as described in Technical Guidance Note (Monitoring) M2 as periodically revised or as previously agreed in writing with the Agency.

Note 3: For these release points only, a particulate emission concentration limit of 10mg/m³ is appropriate for this type of cartridge filter abatement. However, the Environment Agency recognises that it is neither practicable, nor beneficial to test small individual filters. The Operator is therefore required generally to ensure that visible emissions of dust are prevented, or in the event of a visible emission; that such steps are taken as to minimise the release, and that prompt inspection and maintenance is carried out as soon as practicable. Operating instruction shall state visual observations are taken during unloading of bulk lime or sodium carbonate.

2.2.1.4 Total emissions to air from emission point(s) set out in Table 2.2.1 in any year of a substance listed in Table 2.2.3 should not exceed the relevant limit in that Table.

Table 2.2.3 Annual limits

Substance	Limit - kg
None	

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

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

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

2.2.2.3 Emissions to water from the emission point(s) specified in Table 2.2.4 shall only arise from the source(s) specified in that Table. There are no specific controls imposed on emissions to water in Part 2.2.2 of this Permit.

Table 2.2.4: Emission point to water

Emission Point Reference or description	Source	Receiving Water
W1 (WD2 on drawing S4.4122-23(a))	Site surface water drainage from around process buildings and car parks, via interceptor and storage tanks (3 at 200m ³ each)	Cwm Nant Melyn

2.2.2.4 No condition applies

2.2.2.5 No condition applies

2.2.2.6 No condition applies

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 (WD1 on drawing S4.4122-23(a))	<i>Effluent treatment plant taking process waters from site process operations. Also foul domestic sewage from amenity areas.</i>	<i>Welsh Water plc</i>

2.2.2.8 The limits for the emissions to sewer for the parameter(s) and emission point(s) set out in Table 2.2.8 shall not be exceeded.

Table 2.2.8 : Emission limits and monitoring frequency to sewer

Emission point reference	Substance	Limit (including Reference Period)	Monitoring frequency	Monitoring method Note 4.
S1	Flow m ³ day ⁻¹	150 Daily average	Continuous	To be agreed in writing with the Agency prior to commencement of measurement.
	Biological Oxygen Demand mg litre ⁻¹	10.0 Weekly average	Weekly	BS EN 1899-2 (BOD ₅)
	Suspended Solids mg litre ⁻¹	400 Weekly average	Weekly composite made up of daily samples	SCA Blue Book 105 ISBN 011751957X
	Hydrocarbon Oil mg litre ⁻¹	No visible staining	Weekly composite made up of daily samples	-
	pH max	11	Continuous	ISO 10523:1994 or BS 6068-2.50:1995
	pH min	6	Continuous	ISO 10523:1994 or BS 6068-2.50:1995
	Sulphate mg litre ⁻¹	2000 Weekly average	Weekly composite made up of daily samples	SCA Blue Book 136 ISBN 0117522406
	Antimony and its compounds (as Sb) mg litre ⁻¹	2.5 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Arsenic and its compounds (as As) mg litre ⁻¹	2.5 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Cadmium and its compounds (as Cd) mg litre ⁻¹	0.25 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Copper and its compounds (as Cu) mg litre ⁻¹	12.5 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Lead and its compounds (as Pb) mg litre ⁻¹	5.0 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Mercury and its compounds (as Hg) mg litre ⁻¹	0.125 Weekly average	Weekly composite made up of daily samples	BS EN 13506:2002 or BS 6069-2.74:2002
	Nickel and its compounds (as Ni) mg litre ⁻¹	12.5 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003
	Zinc and its compounds (as Zn) mg litre ⁻¹	12.5 Weekly average	Weekly composite made up of daily samples	BS ISO 17294-2:2003 or BS 6068-2.89:2003

Note 4: Monitoring methodology shall have regard to the current methods as described in Technical Guidance Note (Monitoring) M18 as periodically revised or as previously agreed in writing with the Agency.

2.2.2.9 Where a substance is specified in Table 2.2.8 but no limit is set for it, the concentration of such substance in emissions to sewer from the relevant emission point shall be no greater than the background concentration.

- 2.2.2.10 Total emissions in any year of a substance listed in Table 2.2.9 shall not exceed the relevant limit in that Table

Table 2.2.9 Annual emission limit

Substance	Annual limit – kg
Mercury	7
Cadmium	14
Lead	275

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, .

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.

2.2.5 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 No condition applies

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.
 - 2.4.1.4 ensure that the Coke used contains less than 5.0% sulphur by weight

2.5 Waste Storage and Handling

- 2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on the Permitted installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.
- 2.5.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.6 Waste recovery or disposal

- 2.6.1 Waste produced at the Permitted Installation shall be:

2.6.1.1 recovered to no lesser extent than described in the Application; and

2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.

2.6.2 The Operator shall maintain the waste recovery or disposal table or description submitted in response to Section 2.6 of the Application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.

2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

2.6.4 Rotary furnace slag shall meet or better the Hazardous Waste Acceptance Criteria in accordance with information provided in response to Questions 2 and 3 (g) of Schedule 4 Part 1 Notice served 3rd March 2005 and additional information provided to the Agency on 16th March 2005.

2.7 Energy Efficiency

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

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

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

- ensuring that the appropriate operating and maintenance systems are in place;

- ensuring that all plant is adequately insulated to minimise energy loss or gain;
- ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and

maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

2.8 Accident prevention and control

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

2.9 Noise and Vibration

- 2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:
- equipment maintenance, eg. of fans, pumps, motors, conveyors and mobile plant;
 - use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
 - timing and location of noisy activities and vehicle movements;
 - periodic checking of noise emissions, either qualitatively or quantitatively; and
 - maintenance of building fabric,

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

2.10 On-site Monitoring

- 2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Tables 2.2.2, 2.2.5 and 2.2.8, 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 substance monitoring to the frequencies and methods described in Table 2.10.1

Table 2.10.1 : Other monitoring requirements

Emission point reference or source or description of point of measurement	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
Ambient air monitor	Particulate matter as PM ₁₀	Continuous: reported as quarterly rolling average	Note 5.	-
Ambient air monitor	Lead	Continuous: reported as quarterly rolling average	Note 5.	-
W1	Lead	Weekly	BS ISO 17294-2:2003 or BS6068-2.89: 2003	-
W1	pH	Weekly	BS6068-2.50:1995 or ISO 10523:1994	-
W1	Suspended Solids	Weekly	SCA Blue Book 105 ISBN 011751957X	-
W1	Oil and Grease	Weekly	SCA Blue Book 77. ISBN 0117517283	-
W1	Sulphate	Weekly	SCA Blue Book 136 ISBN 0117522406	-

Note 5: Monitoring method and locations to be agreed in writing by the Agency prior to commencement of sampling.

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.

2.11 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.
- 2.13.2 No condition applies

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 Table S2 to Schedule 2;
 - 4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
 - 4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and
 - 4.1.2.4 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. The Operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under condition 4.1.7, and shall carry out regular reviews of it at a minimum frequency of every 2 years. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.
- 4.1.8 The Operator shall submit to the Agency reports estimating the total mass releases to air of each of the substances listed in Table S4.3 in Schedule 4. Reports should be provided in respect of each of the periods specified in Table S4.4 in Schedule 4, **within 28 days of the end of the relevant period.** The information must be furnished by submission of:

Reporting

- Either – a completed electronic spreadsheet (previously supplied) as an attachment to an email. The address to use until further notice is **PIRHelp@environment-agency.gov.uk**; or
- A completed electronic spreadsheet via a CD-ROM sent to your local Inspector at your normal reporting address; or
- Three copies of the completed form specified in Table S3 to Schedule 3 to the Agency at your normal reporting address.

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.
- 5.1.2 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;
- 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);

Notifications

- 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.

6 Interpretation

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

"Application" means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

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

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

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

"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.

"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.

"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.

"Permitted Installation" means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

Interpretation

"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.

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

"Staff" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"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 Metals include both gaseous, vapour and solid phases as well as their compounds (expressed as the metal or total as specified)
- 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.

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
	<i>eg air</i>		
	<i>eg groundwater</i>		

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 EnviroWales Ltd.

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.

Permit and introductory note: the PPC Regulations
 Schedule 2 - Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins
Sulphuric Acid mist mg Nm ⁻³	A1	Every 6 months	1 st day of quarter in which operations commence
Lead and compounds taken together (as metal) mg Nm ⁻³	A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Total Particulate mg Nm ⁻³	A1, A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Sulphur Dioxide mg Nm ⁻³ (Smelting)	A2, A3,	Quarterly	1 st day of quarter in which operations commence
Sulphur Dioxide mg Nm ⁻³ (Natural Gas Fuel)	A5, A6, A7, A8	Every 6 months	1 st day of quarter in which operations commence
Hydrogen Chloride mg Nm ⁻³	A2, A3	Quarterly	1 st day of quarter in which operations commence
Cadmium and compounds taken together (as element) mg Nm ⁻³	A1, A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Copper, lead, nickel, zinc and their compounds taken together (as metal) mg Nm ⁻³	A1, A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Antimony, tin, tellurium and their compounds taken together (as element) mg Nm⁻³	A1, A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Cadmium, arsenic, thallium, selenium, and their compounds taken together (as element) mg Nm⁻³	A1, A2, A3, A4	Quarterly	1 st day of quarter in which operations commence
Mercury (as element) mg Nm⁻³			
Dioxins and Furans (ITEQ) ng Nm ⁻³	A2, A3,	Every 6 months	1 st day of quarter in which operations commence
Oxides of Nitrogen mg Nm ⁻³	A2, A3, A5, A6, A7, A8	Quarterly	1 st day of quarter in which operations commence
Carbon Monoxide mg Nm ⁻³	A2, A3, A5, A6, A7, A8	Quarterly	1 st day of quarter in which operations commence
Volatile Organic Compounds (as Carbon) mg Nm ⁻³	A2, A3, A5, A6, A7, A8	Quarterly	1 st day of quarter in which operations commence
Particulate mg Nm ⁻³	A9, A10	Quarterly	1 st day of quarter in which operations commence
Flow m³ day⁻¹	S1	Quarterly	1 st day of quarter in which operations commence
Biological Oxygen Demand mg litre ⁻¹	S1	Quarterly	1 st day of quarter in which operations commence
Suspended Solids mg litre ⁻¹	S1	Quarterly	1 st day of quarter in which operations commence
Hydrocarbon Oil	S1	Quarterly	1 st day of quarter in which operations commence

Permit and introductory note: the PPC Regulations
 Schedule 2 - Reporting of monitoring data

pH max	S1	Quarterly	1st day of quarter in which operations commence
pH min	S1	Quarterly	1st day of quarter in which operations commence
Sulphate mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Antimony and its compounds (as Sb) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Arsenic and its compounds (as As) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Cadmium and its compounds (as Cd) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Copper and its compounds (as Cu) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Lead and its compounds (as Pb) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Mercury and its compounds (as Hg) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Nickel and its compounds (as Ni) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Zinc and its compounds (as Zn) mg litre⁻¹	S1	Quarterly	1st day of quarter in which operations commence
Water usage		Annually	1st January 2006.
Energy Usage		Annually	1st January 2006.
Waste disposal and/or Recovery		Annually	1st January 2006.
Performance Indicators		Annually	1st January 2006.
Quarterly Substance Reports		Quarterly	1st day of quarter in which operations commence

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	Form Number	Date of Form
<i>Air</i>	<i>A1, A2, A3</i>	<i>26/04/05</i>
<i>Water (excluding sewer)</i>	<i>W1</i>	<i>26/04/05</i>
<i>Sewer</i>	<i>S1, S2</i>	<i>26/04/05</i>
<i>Energy</i>	<i>E1</i>	<i>26/04/05</i>
<i>Waste Return</i>	<i>R1</i>	<i>26/04/05</i>
<i>Water usage</i>	<i>WU1</i>	<i>26/04/05</i>
<i>Performance indicators</i>	<i>PI1</i>	<i>26/04/05</i>
<i>Quarterly Substance reports</i>	<i>SC1</i>	<i>26/04/05</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.

Table S4.1: Annual Production/Treatment

<i>Production of Lead</i>	<i>Tonnes</i>
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Table S4.2: Performance parameters

Parameter	Frequency of assessment	Performance indicator
<i>BOD</i>	<i>Annually</i>	<i>BOD/t</i>
<i>Non potable water use</i>	<i>Annually</i>	<i>m³/t</i>
<i>Waste Hazard Score</i>	<i>Annually</i>	
<i>Waste Disposal Score</i>	<i>Annually</i>	

Data required to be recorded and reported by Condition 4.1.8. The data should be assessed for the periods given and reported quarterly to the Agency.

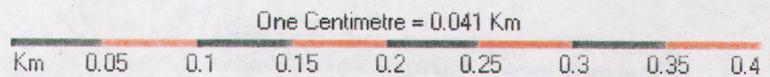
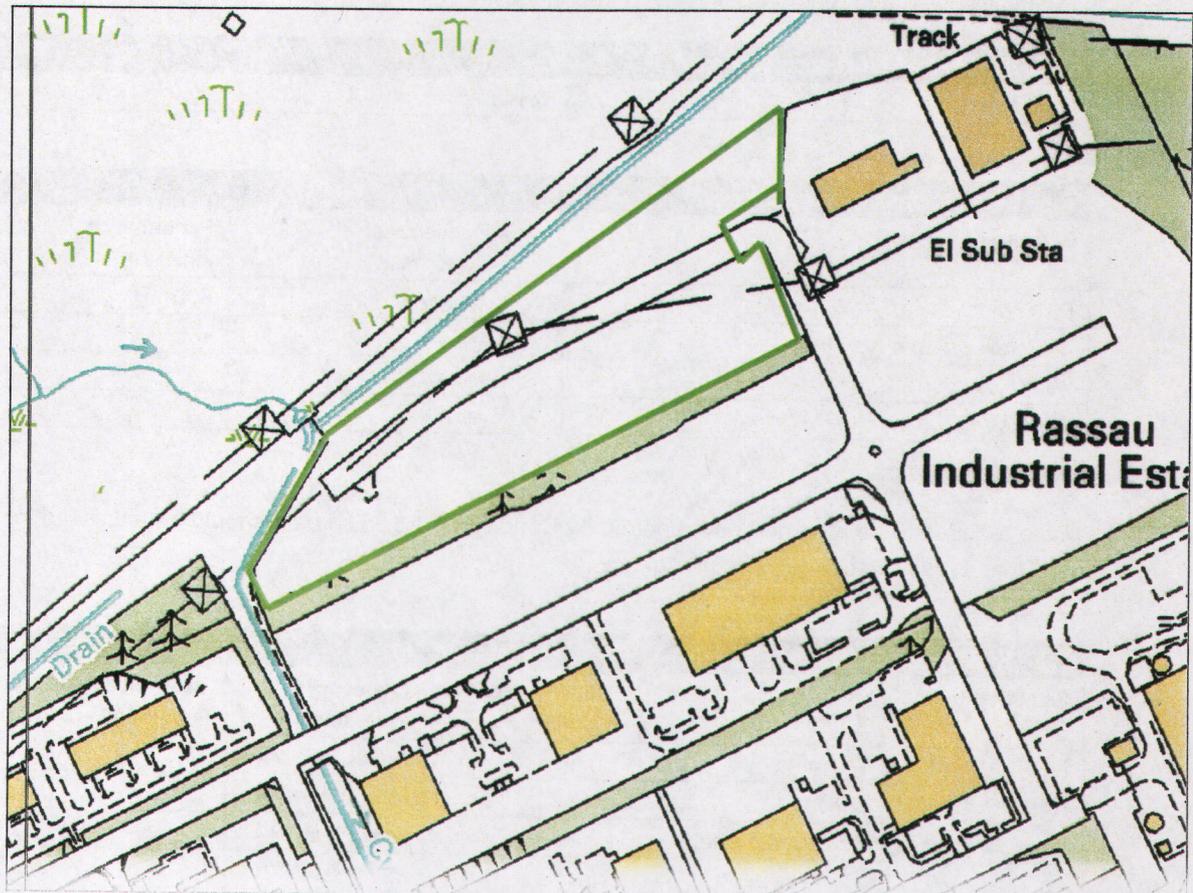
Table S4.3: Periodic Substance Reports

Parameter Units	Units	Medium	Frequency of assessment	Mass released in the Reporting Period
<i>Lead</i>	<i>Kg</i>	<i>Air</i>	<i>Periods Table S4.4</i>	
<i>PM10s (particulates < 10 micron)</i>	<i>tonnes</i>	<i>Air</i>	<i>Periods Table S4.4</i>	
<i>Nitrogen oxides (except N₂O) (reported as NO₂)</i>	<i>tonnes</i>	<i>Air</i>	<i>Periods Table S4.4</i>	
<i>Non-methane Volatile Organic Compounds</i>	<i>tonnes</i>	<i>Air</i>	<i>Periods Table S4.4</i>	

Table S4.4: Reporting periods for Table S4.3

From	To
<i>1 April</i>	<i>30 June</i>
<i>1 July</i>	<i>30 September</i>
<i>1 October</i>	<i>31 December</i>
<i>1 January</i>	<i>31 March</i>

Schedule 5 - Site Plan



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