

# Notice of variation and consolidation with introductory note

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

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Mastermelt Refining Services Limited

Staden Lane Industrial Estate  
Ashbourne Road  
Buxton  
Derbyshire  
SK17 9RZ

**Variation application number**

EPR/BL1312IE/V011

**Permit number**

EPR/BL1312IE

# Staden Lane Industrial Estate

## Permit number EPR/BL1312IE

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

#### **Changes introduced by this variation notice/statutory review**

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for non-ferrous metals. The opportunity has also been taken to consolidate the original permit and subsequent variations.

The Industrial Emissions Directive (IED) came into force on 07 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. The BAT Conclusions (BATc) for the non-ferrous metals industries were published on 30 June 2016 in the Official Journal of the European Union (L174) following a European Union wide review of BAT, implementing decision (EU) 2016/1032 of 13 June 2016. The BATc for this installation which apply from 30 June 2020 are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 18, 19, 134, 135, 136, 137, 138, 139, 140, 141, 142, 144, 146, 147, 148 and 149. The operator is already compliant with the BATc with the exception of 10 and 144. We have set improvement conditions in the varied permit to track progress against future compliance.

This variation also includes an improvement condition that requires the operator to submit a Surface Water Risk Assessment (in line with the requirements of the Water Framework Directive).

The schedules specify the changes made to the permit. Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

#### **Brief description of the process**

Staden Lane Industrial Estate (the installation) is operated by Mastermelt Refining Services Limited and is located in Buxton, Derbyshire, England. The site is surrounded to the north, west and south by business and industrial units. To the east of the site are fields. There are several conservation sites within 10 km of the installation (Poole's Cavern & Grin Low Wood Site of Special Scientific Interest (SSSI), Wye Valley SSSI, Topley Pike and Deep Dales SSSI, Peak District Dales Special Area of Conservation (SAC), South Pennine Moors SAC and Peak District Moors Special Protection Area). The closest is Poole's Cavern and Grin Low Wood approximately 1,300 metres to the north-west of the site.

The installation falls into the Precious Metals Production sub-sector, within the Non-Ferrous Metals Sector.

The following Schedule 1 activities are undertaken at the installation:

Section 2.2 A(1)(a) - producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities.

Section 4.2 A(1)(b) - any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water).

Section 2.2 B(a) - melting, including making alloys of, non-ferrous metals (other than tin or any alloy which in molten form contains 50 per cent or more by weight of tin), including recovered products (such as refining or

foundry casting) in plant with a melting capacity of 4 tonnes or less per day for lead or cadmium or 20 tonnes or less per day for all other metals.

The main purpose of the processes undertaken at the installation is to recover precious metals from waste materials. Recovery methods are as follows:

- sodium cyanide dissolution and precipitation
- hydrochloric and nitric acid dissolution and precipitation
- thermal treatment (ashing down)
- milling and sieving
- melting in induction furnaces and casting into ingots/bars.

The installation is permitted to accept a total of 1,800 tonnes of waste per year aggregated across all permitted activities. This annual tonnage incorporates up to 1,050 tonnes of waste which can be processed via the ashing down plant.

Emissions to air from the cyanide dissolution process consist of steam only and these are vented directly to atmosphere via a roof outlet fan. Emissions to air from the acid dissolution process are abated via an alkaline scrubber and are discharged at emission point A1. Emissions to air from the ashing down plants and furnaces are controlled using an alkaline scrubber, quench tower and bag filters and are discharged at emission points A4 and A5. Dust generated during milling and sieving is collected via local ventilation extraction and directed into dust collection units.

All noisy equipment, e.g. balls mills, are housed within enclosures to minimise noise emissions.

All waste liquids are collected into designated bunded holding tanks pending collection for disposal off site. Wherever possible solid wastes produced on site are reprocessed to recover the precious metal content.

Rainwater from external bunded areas is discharged via the foul sewer. There are no emissions to surface water.

The process includes a number of techniques designed to use energy efficiently. Energy efficiency is considered within the operator's Environmental Management System, which is certified to ISO 14001.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application received BL1312 (EPR/BL1312IE/A001)	Duly made 24/12/2001	
Response to request for information	Request dated 25/01/2002	Response dated 27/05/2002.
Response to request for information	Request dated 06/12/2002	Response dated 06/12/2002.
Response to request for information	Request dated 28/02/2003	Response dated 02/06/2003.
Permit determined EPR/BL1312IE	Issued 30/09/2003	
Variation determined EPR/BL1312IE/V002	02/02/2004	Made under Regulation 17(1).
Variation determined EPR/BL1312IE/V003	05/11/2005	

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/BL1312IE/V004 (variation and consolidation)	Duly made 08/10/2012	Application to vary and consolidate the permit with modern conditions.
Response to request for information	03/12/2012	Information relating to emission point A2/3.
Response to request for information	06/12/2012	Information relating to non-hazardous waste codes for the incineration process and confirmation of annual waste tonnages. Request to include additional hazardous waste codes for the incineration process.
Variation determined EPR/BL1312IE/V004	Issued 18/12/2012	Issue of consolidated permit.
Application for variation EPR/BL1312IE/V005	Duly made 14/03/2013	Addition of two waste codes, inclusion of Environment Agency conditions updating the activity references.
Response to request for information	09/05/2013	
Variation determined EPR/BL1312IE/V005	Issued 14/05/2013	
Application for variation EPR/BL1312IE/V006	Duly made 23/12/2013	Addition of a waste code.
Variation determined EPR/BL1312IE/V006	Issued 07/01/2014	
Application for variation EPR/BL1312IE/V007	Duly made 08/07/2014	Addition of two waste codes.
Variation determined EPR/BL1312IE/V007	Issued 29/07/2014	
Application for variation EPR/BL1312IE/V008	Withdrawn 30/12/2014	
Application for variation EPR/BL1312IE/V009	Duly made 23/02/2015	Addition of two waste codes.
Response to request for information	09/04/2015	Addition of a waste code – detail supplied.
Variation determined EPR/BL1312IE/V009	Issued 13/05/2015	
Application EPR/BL1312IE/V010 (variation and consolidation)	Duly made 02/11/2015	Application to vary and update the permit to modern conditions.
Variation determined EPR/BL1312IE Billing Reference: CP3630RE	15/03/2016	Varied and consolidated permit issued in modern condition format.
Regulation 60 notice dated 16/12/2016 (notice requiring information for statutory review of permit)	Response Received 03/04/2017	Technical standards detailed in response to the information notice. Information to demonstrate that relevant BAT Conclusions are met for the non-ferrous metals industries as detailed in document reference L174.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Regulation 61 notice dated 20/04/2018 (notice requiring information for statutory review of permit)	Response Received 02/05/2018	Further information / clarification with regard to BAT conclusions 1-19 and 134-149.
Environment Agency initiated variation EPR/BL1312IE/V011 (variation and consolidation)  Variation determined EPR/BL1312IE/V011 (PAS / Billing Ref: HP3637JS)	19/06/2018	Statutory review of permit – Non-ferrous metals BAT Conclusions published 30/06/2016.  Varied and consolidated permit issued.

End of introductory note

# Notice of variation and consolidation

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

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

### Permit number

**EPR/BL1312IE**

### Issued to

**Mastermelt Refining Services Limited** (“the operator”)

whose registered office is

**30 City Road**

**London**

**EC1Y 2AB**

company registration number 04029877

to operate an installation at

**Staden Lane Industrial Estate**

**Ashbourne Road**

**Buxton**

**Derbyshire**

**SK17 9RZ**

to the extent set out in the schedules.

The notice shall take effect from 19/06/2018

Name	Date
Tom Swift	19/06/2018

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

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

### Permit number

**EPR/BL1312IE**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BL1312IE/V011 authorising,

**Mastermelt Refining Services Limited** (“the operator”),

whose registered office is

**30 City Road**

**London**

**EC1Y 2AB**

company registration number 04029877

to operate an installation at

**Staden Lane Industrial Estate**

**Ashbourne Road**

**Buxton**

**Derbyshire**

**SK17 9RZ**

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

Name	Date
Tom Swift	19/06/2018

Authorised on behalf of the Environment Agency



# Conditions

## 1 Management

### 1.1 General management

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

### 1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

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

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

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

## **2 Operations**

### **2.1 Permitted activities**

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

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

### **2.3 Operating techniques**

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 Waste shall only be accepted if:

- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **Hazardous waste storage and treatment**

2.3.7 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

## **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1a, S3.1b and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1a, S3.1b and S3.2.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1a, S3.1b and S3.2 unless otherwise agreed in writing by the Environment Agency.

### **3.6 Fire prevention**

- 3.6.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.6.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
  - (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 4 Information

### 4.1 Records

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

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

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

### 4.2 Reporting

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

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

## 4.3 Notifications

### 4.3.1 In the event:

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

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

# Schedule 1 – Operations

<b>Table S1.1 activities</b>		
<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity and waste types</b>
Section 2.2 A(1)(a)	Producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities.  [Cyanide dissolution and precipitation of precious metals from precious metal bearing wastes.]	From receipt of precious metal bearing wastes into process, to transfer to the melting furnace. Includes cyanide destruction electrolytic cells.  Wastes as specified in table S2.2.
Section 4.2 A(1)(b)	Any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water).  [Hydrochloric and nitric acid dissolution and precipitation of precious metals from precious metal bearing wastes.]	From receipt of precious metal bearing wastes into process, to transfer to the melting furnace.  Wastes as specified in table S2.2.
Section 2.2 B(a)	Melting, including making alloys of, non-ferrous metals (other than tin or any alloy which in molten form contains 50 per cent or more by weight of tin), including recovered products (such as refining or foundry casting) in plant with a melting capacity of 4 tonnes or less per day for lead or cadmium or 20 tonnes or less per day for all other metals.	From receipt of precious metal bearing wastes, or output from cyanide or acid dissolution process, into furnace, to transfer to packaging and storage. Includes casting of bars/ingots.  Wastes as specified in table S2.2.
<b>Directly Associated Activity</b>		
Raw materials storage and handling.	Receipt, handling and storage of precious metal bearing wastes and all process substances.	From receipt of materials until used in the process.
Thermal treatment (ashing down).	Incineration of precious metal bearing wastes to separate precious metal content.	From receipt of precious metal bearing wastes in ashing down plant to transfer to milling and sieving processes.  Wastes as specified in table S2.3.



<b>Table S1.1 activities</b>		
<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity and waste types</b>
Milling and sieving.	Pulverisation of precious metal bearing wastes, or of output from ashing down plant, in ball mills, and grading of material using shaker sieves.	From receipt of precious metal bearing wastes or output from ashing down plant, to transfer to melting furnace or to packaging and storage. Includes local exhaust ventilation systems serving dust collection units.  Wastes as specified in table S2.2.
Storage and handling of wastes.	Handling and storage of process wastes.	From separation of wastes from process to dispatch from installation.
Off-gas collection and abatement.	Collection via ducting to abatement plant and discharge via stacks.	From localised extraction to stack exit.
Effluent discharge to foul sewer.	Discharge of rainwater from external bunded areas.	From collection of contaminated rainwater in bunds to discharge to external foul sewer.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Original permit application	The response to questions 2.1 and 2.2 given in section 2 of the application.	17/12/2001
EPR/BL1312IE/V004	<ul style="list-style-type: none"> <li>Form C3, question 1 response, table 1b (MRSL EWC Codes: support comments relating to EWC codes 06 07 99, 06 10 99, 11 01 99, 12 01 99 and 16 01 99).</li> <li>Form C3, question 6d response: - raw materials, other materials, other substances and water use associated with the incineration process.</li> <li>Form C3, Appendix 5, question 1-4 responses; waste pre-acceptance, acceptance and storage procedures.</li> <li>Form C3, Appendix 5, question 5 response: - summary of incineration process.</li> </ul>	13/09/2012
	<ul style="list-style-type: none"> <li>Document entitled "Ashing Down Process" – paragraphs 1 to 5.</li> <li>Information relating to the receipt and handling of batteries.</li> </ul>	08/10/2012
	<ul style="list-style-type: none"> <li>Information relating to redundant emission point A2/A3 and rerouting of process stream through emission point A1 with associated abatement.</li> </ul>	03/12/2012
Variation application EPR/BL1312IE/V007	Form C0.5, Question 2a response. Appendix 1 for Part C0.5 Admin Variation.	06/06/2014
	Information relating to ensuring spent catalysts accepted on site will be mercury free.	07/07/2014
Variation application EPR/BL1312IE/V010	Form EPC: Application for an environmental permit – Part C3 varying a bespoke installation permit, Question 3.	02/10/2015
Variation application EPR/BL1312IE/V010	Supporting Information – Schedule 1, Table 1 Best Available Techniques.	02/10/2015
Response to Regulation 60 notice – request for further information dated 06/12/2016	Technical standards detailed in response to BAT Conclusions 1-10, 14, 18-19, 134-142, 144 and 146-149 of the notice provided under Regulation 60(1) of Environmental Permitting Regulations.  Best available techniques as described in BAT Conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for non-ferrous metals industries.	03/04/2017
Response to Regulation 61 notice – request for further information dated 20/04/2018	Further information and/or clarification on BAT conclusions 1-10, 14, 18-19, 134-142, 144 and 146-149.	02/05/2018
Response to email – request for further information dated 14/05/2018	Further information and/or clarification on BAT conclusions 5, 139, 140, 141, 142 and 144.	15/05/2018

Table S1.3 Improvement programme requirements		
Reference	Improvement Condition	Completion date
IC01	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the BAT conclusion AEL where BAT is currently not achieved, but will be achieved before 30 June 2020. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• Current performance against the BAT-AEL.</li> <li>• Methodology for reaching the AEL.</li> <li>• Associated targets / timelines for reaching compliance by 30 June 2020.</li> <li>• Any alterations to the initial plan.</li> </ul> <p>The report shall address the following BAT:</p> <p style="text-align: center;"><b>BAT 10 and BAT 144</b> (monitoring and compliance with BAT-AEL for emissions of chlorine at emission point A1).</p> <p>Refer to BAT Conclusions and Table S3.1b for a full description of the BAT requirements.</p>	<p>Unless otherwise agreed by the Environment Agency progress reports to be submitted every 6 months from the date of issue of notice V011.</p> <p>Compliance by 30 June 2020.</p>
IC02	<p>The operator shall undertake a review of periodic monitoring for emissions to air of:</p> <ul style="list-style-type: none"> <li>• Particulate matter from emission points A4 and A5.</li> <li>• Sulphur dioxide from emission points A4 and A5.</li> <li>• Oxides of nitrogen NO<sub>x</sub> (as NO<sub>2</sub>) from emission point A1.</li> </ul> <p>The review will be made with reference to BAT 10 of the BAT Conclusions for the Non-Ferrous Metals Industries (Commission Implementing Decision EU2016/1032) and shall justify, with appropriate evidence, the frequency of monitoring to be employed at the installation from 30 June 2020.</p> <p>The evidence required under this condition shall include analysis and interpretation of monitoring results for each substance, and performance against the relevant BAT-AEL. Consideration should be given to <i>inter alia</i> the nature of the raw materials, fluxing agents, refining chemicals used; operational stability; and process monitoring associated with operation of abatement plant. The quantity of monitoring data considered must be justified and be sufficient so as to demonstrate that the results are statistically representative of emissions during normal operations, covering the concentration range and mass emission rate of substances emitted at all stages of the process.</p> <p>A report on the above review shall be submitted to the Environment Agency to facilitate agreement in writing of the appropriate monitoring provision at the installation.</p>	<p>Within 12 months of effective date of notice V011.</p>
IC03	<p>The operator shall submit a surface water pollution risk assessment to the Environment Agency for approval, which shall assess the impact of discharges of hazardous pollutants to <b>surface water and/or sewer</b> from the installation. The risk assessment shall include, but not be limited to the following:</p>	<p>Within 12 months of effective date of notice V011.</p>

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Improvement Condition</b>	<b>Completion date</b>
	<ul style="list-style-type: none"> <li>representative emissions data for the following hazardous pollutants: silver, arsenic, cadmium, cobalt, chromium (total), chromium (VI), copper, mercury, nickel, lead, zinc; and any other relevant substances discharged from the installation. Any emissions monitoring required should be carried out using the methods and standards described in Environment Agency M18 guidance; and</li> <li>a risk assessment in accordance with the screening procedures in Environment Agency guidance “Surface water pollution risk assessment for your environmental permit”, using the representative emissions data obtained in (a) above.</li> </ul>	

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

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

Table S2.2 Permitted waste types and quantities	
Maximum quantity	Annual throughput shall not exceed 1,800 tonnes.
Waste code	Description
<b>06</b>	<b>Wastes from inorganic chemical processes</b>
<b>06 04</b>	<b>metal-containing wastes other than those mentioned in 06 03</b>
06 04 05*	wastes containing other heavy metals
<b>06 07</b>	<b>wastes from the MFSU of halogens and halogen chemical processes</b>
06 07 99	wastes not otherwise specified
<b>06 10</b>	<b>wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture</b>
06 10 02*	wastes containing hazardous substances
06 10 99	wastes not otherwise specified
<b>08</b>	<b>Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks</b>
<b>08 01</b>	<b>wastes from MFSU and removal of paint and varnish</b>
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
<b>09</b>	<b>Wastes from the photographic industry</b>
<b>09 01</b>	<b>wastes from the photographic industry</b>
09 01 07	photographic film and paper containing silver or silver compounds
<b>10</b>	<b>Wastes from thermal processes</b>
<b>10 02</b>	<b>wastes from the iron and steel industry</b>
10 02 01	wastes from the processing of slag
<b>10 07</b>	<b>wastes from silver, gold and platinum thermal metallurgy</b>
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 04	other particulates and dust
10 07 05	sludges and filter cakes from gas treatment
<b>11</b>	<b>Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy</b>
<b>11 01</b>	<b>wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)</b>
11 01 05*	pickling acids

<b>Table S2.2 Permitted waste types and quantities</b>	
<b>Maximum quantity</b>	<b>Annual throughput shall not exceed 1,800 tonnes.</b>
<b>Waste code</b>	<b>Description</b>
11 01 06*	acids not otherwise specified
11 01 09*	sludges and filter cakes containing hazardous substances
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 11*	aqueous rinsing liquids containing hazardous substances
11 01 16*	saturated or spent ion exchange resins
11 01 98*	other wastes containing hazardous substances
11 01 99	wastes not otherwise specified
<b>12</b>	<b>Wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>
<b>12 01</b>	<b>wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
12 01 99	wastes not otherwise specified
<b>15</b>	<b>Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>
15 01 10*	packaging containing residues of or contaminated by hazardous substances
<b>15 02</b>	<b>absorbents, filter materials, wiping cloths and protective clothing</b>
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
<b>16</b>	<b>Wastes not otherwise specified in the list</b>
<b>16 01</b>	<b>end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)</b>
16 01 18	non-ferrous metal
16 01 99	wastes not otherwise specified
<b>16 02</b>	<b>wastes from electrical and electronic equipment</b>
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 15*	hazardous components removed from discarded equipment
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
<b>16 03</b>	<b>off-specification batches and unused products</b>
16 03 03*	inorganic wastes containing hazardous substances
16 03 04	inorganic wastes other than those mentioned in 16 03 03
<b>16 06</b>	<b>batteries and accumulators</b>
16 06 05	other batteries and accumulators

<b>Table S2.2 Permitted waste types and quantities</b>	
<b>Maximum quantity</b>	<b>Annual throughput shall not exceed 1,800 tonnes.</b>
<b>Waste code</b>	<b>Description</b>
<b>16 08</b>	<b>spent catalysts</b>
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 06*	spent liquids used as catalysts
16 08 07*	spent catalysts contaminated with hazardous substances
<b>16 10</b>	<b>aqueous liquid wastes destined for off-site treatment</b>
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
<b>17</b>	<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
<b>17 04</b>	<b>metals (including their alloys)</b>
17 04 01	copper, bronze, brass
<b>18</b>	<b>Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)</b>
<b>18 01</b>	<b>wastes from natal care, diagnosis, treatment or prevention of disease in humans</b>
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
<b>19</b>	<b>Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>
19 02 03	premixed wastes composed only of non-hazardous wastes
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 03	non-ferrous metal

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
<b>05</b>	<b>Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal</b>
<b>05 01</b>	<b>wastes from petroleum refining</b>
05 01 02*	desalter sludges
05 01 03*	tank bottom sludges
05 01 04*	acid alkyl sludges
05 01 07*	acid tars
05 01 09*	sludges from on-site effluent treatment containing hazardous substances
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges
05 01 14	wastes from cooling columns
05 01 15*	spent filter clays
<b>06</b>	<b>Wastes from inorganic chemical processes</b>
<b>06 01</b>	<b>wastes from the manufacture, formulation, supply and use (MFSU) of acids</b>
06 01 01*	sulphuric acid and sulphurous acid
06 01 02*	hydrochloric acid
<b>06 02</b>	<b>wastes from the MFSU of bases</b>
06 02 01*	calcium hydroxide
06 02 04*	sodium and potassium hydroxide
<b>06 03</b>	<b>wastes from the MFSU of salts and their solutions and metallic oxides</b>
06 03 11*	solid salts and solutions containing cyanides
06 03 13*	solid salts and solutions containing heavy metals
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
<b>06 04</b>	<b>metal-containing wastes other than those mentioned in 06 03</b>
06 04 05*	wastes containing other heavy metals
<b>06 05</b>	<b>sludges from on-site effluent treatment</b>
06 05 02*	sludges from on-site effluent treatment containing hazardous substances
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02
<b>06 07</b>	<b>wastes from the MFSU of halogens and halogen chemical processes</b>
06 07 02*	activated carbon from chlorine production
06 07 04*	solutions and acids, for example contact acid
06 07 99	wastes not otherwise specified
<b>06 10</b>	<b>wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture</b>
06 10 99	wastes not otherwise specified
<b>06 11</b>	<b>wastes from the manufacture of inorganic pigments and opacifiers</b>



<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
06 11 01	calcium-based reaction wastes from titanium dioxide production
<b>06 13</b>	<b>wastes from inorganic chemical processes not otherwise specified</b>
06 13 02*	spent activated carbon (except 06 07 02)
<b>07</b>	<b>Wastes from organic chemical processes</b>
<b>07 01</b>	<b>wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals</b>
07 01 08*	other still bottoms and reaction residues
07 01 10*	other filter cakes and spent absorbents
07 01 11*	sludges from on-site effluent treatment containing dangerous substances
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
<b>07 02</b>	<b>wastes from the MFSU of plastics, synthetic rubber and man-made fibres</b>
07 02 08*	other still bottoms and reaction residues
07 02 10*	other filter cakes and spent absorbents
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 16*	wastes containing hazardous silicones
<b>07 03</b>	<b>wastes from the MFSU of organic dyes and pigments (except 06 11)</b>
07 03 08*	other still bottoms and reaction residues
07 03 10*	other filter cakes and spent absorbents
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
<b>07 04</b>	<b>wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides</b>
07 04 08*	other still bottoms and reaction residues
07 04 10*	other filter cakes and spent absorbents
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
<b>07 05</b>	<b>wastes from the MFSU of pharmaceuticals</b>
07 05 01*	aqueous washing liquids and mother liquors
07 05 04*	other organic solvents, washing liquids and mother liquors
07 05 08*	other still bottoms and reaction residues
07 05 10*	other filter cakes and spent absorbents
07 05 11*	sludges from on-site effluent treatment containing dangerous substances
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 13*	solid wastes containing dangerous substances
07 05 14	solid wastes other than those mentioned in 07 05 13
<b>07 06</b>	<b>wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics</b>
07 06 08*	other still bottoms and reaction residues

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
07 06 10*	other filter cakes and spent absorbents
07 06 11*	sludges from on-site effluent treatment containing dangerous substances
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
<b>07 07</b>	<b>wastes from the MFSU of fine chemicals and chemical products not otherwise specified</b>
07 07 01*	aqueous washing liquids and mother liquors
07 07 08*	other still bottoms and reaction residues
07 07 10*	other filter cakes and spent absorbents
07 07 11*	sludges from on-site effluent treatment containing hazardous substances
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
<b>08</b>	<b>Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks</b>
<b>08 01</b>	<b>wastes from MFSU and removal of paint and varnish</b>
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 13*	sludges from paint or varnish containing organic solvents or other hazardous substances
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13
08 01 15*	aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
<b>08 02</b>	<b>wastes from MFSU of other coatings (including ceramic materials)</b>
08 02 01	waste coating powders
08 02 02	aqueous sludges containing ceramic materials
08 02 03	aqueous suspensions containing ceramic materials
<b>08 03</b>	<b>wastes from MFSU of printing inks</b>
08 03 07	aqueous sludges containing ink
08 03 08	aqueous liquid waste containing ink
08 03 12*	waste ink containing hazardous substances
08 03 14*	ink sludges containing hazardous substances
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 16*	waste etching solutions
<b>08 04</b>	<b>wastes from MFSU of adhesives and sealants (including waterproofing products)</b>
08 04 13*	aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
<b>09</b>	<b>Wastes from the photographic industry</b>
<b>09 01</b>	<b>wastes from the photographic industry</b>
09 01 01*	water-based developer and activator solutions
09 01 02*	water-based offset plate developer solutions
09 01 04*	fixer solutions
09 01 07	photographic film and paper containing silver or silver compounds
<b>10</b>	<b>Wastes from thermal processes</b>
<b>10 02</b>	<b>wastes from the iron and steel industry</b>
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
<b>10 04</b>	<b>wastes from lead thermal metallurgy</b>
10 04 01*	slags from primary and secondary production
10 04 04*	flue-gas dust
10 04 07*	sludges and filter cakes from gas treatment
<b>10 06</b>	<b>wastes from copper thermal metallurgy</b>
10 06 01	slags from primary and secondary production
10 06 07*	sludges and filter cakes from gas treatment
<b>10 07</b>	<b>wastes from silver, gold and platinum thermal metallurgy</b>
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 04	other particulates and dust
10 07 05	sludges and filter cakes from gas treatment
<b>10 08</b>	<b>wastes from other non-ferrous thermal metallurgy</b>
10 08 04	particulates and dust
10 08 09	other slags
10 08 15*	flue-gas dust containing hazardous substances
10 08 16	flue-gas dust other than those mentioned in 10 08 15
<b>10 10</b>	<b>wastes from casting of non-ferrous pieces</b>
10 10 03	furnace slag
10 10 09*	flue-gas dust containing dangerous substances
10 10 10	flue-gas dust other than those mentioned in 10 10 09
<b>10 11</b>	<b>wastes from manufacture of glass and glass products</b>

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• Annual throughput of hazardous waste shall not exceed 400 tonnes.</li> <li>• Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</li> </ul>
<b>Waste code</b>	<b>Description</b>
10 11 05	particulates and dust
<b>11</b>	<b>Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy</b>
<b>11 01</b>	<b>wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)</b>
11 01 05*	pickling acids
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 11*	aqueous rinsing liquids containing hazardous substances
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11
11 01 15*	eluate and sludges from membrane systems or ion exchange systems containing hazardous substances
11 01 16*	saturated or spent ion exchange resins
11 01 99	wastes not otherwise specified
<b>11 02</b>	<b>wastes from non-ferrous hydrometallurgical processes</b>
11 02 05*	wastes from copper hydrometallurgical processes containing dangerous substances
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
<b>12</b>	<b>Wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>
<b>12 01</b>	<b>wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 14*	machining sludges containing hazardous substances
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 20*	spent grinding bodies and grinding materials containing dangerous substances
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
12 01 99	wastes not otherwise specified
<b>15</b>	<b>Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>
15 01 10*	packaging containing residues of or contaminated by hazardous substances
<b>15 02</b>	<b>absorbents, filter materials, wiping cloths and protective clothing</b>
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
<b>16</b>	<b>Wastes not otherwise specified in the list</b>
<b>16 01</b>	<b>end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)</b>
16 01 22	components not otherwise specified
<b>16 02</b>	<b>wastes from electrical and electronic equipment</b>
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
<b>16 03</b>	<b>off-specification batches and unused products</b>
16 03 03*	inorganic wastes containing hazardous substances
16 03 04	inorganic wastes other than those mentioned in 16 03 03
<b>16 08</b>	<b>spent catalysts</b>
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 02*	spent catalysts containing hazardous transition metals or hazardous transition metal compounds
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 08 04	spent fluid catalytic cracking catalysts (except 16 08 07)
16 08 07*	spent catalysts contaminated with hazardous substances
<b>16 10</b>	<b>aqueous liquid wastes destined for off-site treatment</b>
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
<b>16 11</b>	<b>waste linings and refractories</b>
16 11 01*	carbon-based linings and refractories from metallurgical processes containing dangerous substances
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 03*	other linings and refractories from metallurgical processes containing dangerous substances
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 05*	linings and refractories from non-metallurgical processes containing dangerous substances
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
<b>17</b>	<b>Construction and demolition wastes (excluding excavated soil from contaminated sites)</b>

<b>Table S2.3 Permitted waste types and quantities for ashing down plant</b>	
<b>Maximum quantity</b>	<b>Total aggregate annual throughput shall not exceed 1,050 tonnes.</b> <ul style="list-style-type: none"> <li>• <b>Annual throughput of hazardous waste shall not exceed 400 tonnes.</b></li> <li>• <b>Annual throughput of non-hazardous waste shall not exceed 650 tonnes.</b></li> </ul>
<b>Waste code</b>	<b>Description</b>
<b>17 01</b>	<b>concrete, bricks, tiles and ceramics</b>
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
<b>17 02</b>	<b>wood, glass and plastic</b>
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 02 04*	glass, plastic and wood containing or contaminated with dangerous substances
<b>17 04</b>	<b>metals (including their alloys)</b>
17 04 07	mixed metals
<b>18</b>	<b>Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)</b>
<b>18 01</b>	<b>wastes from natal care, diagnosis, treatment or prevention of disease in humans</b>
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
<b>20</b>	<b>Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

## Schedule 3 – Emissions and monitoring

<b>Table S3.1a Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Effective until 29 June 2020</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 [Point A1 on site plan in Schedule 7]	Wet scrubber serving acid dissolution process	Oxides of nitrogen NO <sub>x</sub> (NO and NO <sub>2</sub> , expressed as NO <sub>2</sub> )	75 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14792
		Gaseous chlorides, expressed as HCl	60 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 1911
A4 [Point A4 on site plan in schedule 7]	Wet scrubber and bag filter serving old ashing down plant and melting furnaces	Particulate matter	5 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 13284-1 and MID
		Dioxins and furans	0.1 ng/m <sup>3</sup>	Periodic over minimum 6 hours, maximum 8 hour period	Bi-annual	BS EN 1948 parts 1, 2 and 3 and MID
		Sulphur dioxide	50 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14791
		Volatile organic compounds (VOCs)	50 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 12619
		Carbon monoxide	150 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 15058
		Beryllium	0.005 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID
		Selenium	0.5 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID
		Total arsenic, antimony, beryllium, cadmium, copper, lead, mercury and zinc	2 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID

**Table S3.1a Point source emissions to air – emission limits and monitoring requirements**  
**Effective until 29 June 2020**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A5 [Point A5 on site plan in schedule 7]	Quench tower and bag filter serving new ashing down plant	Particulate matter	5 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 13284-1 and MID
		Dioxins and furans	0.1 ng/m <sup>3</sup>	Periodic over minimum 6 hours, maximum 8 hour period	Bi-annual	BS EN 1948 parts 1, 2 and 3 and MID
		Sulphur dioxide	50 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14791
		Volatile organic compounds (VOCs)	50 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 12619
		Carbon monoxide	150 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 15058
		Beryllium	0.005 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID
		Selenium	0.5 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID
		Total arsenic, antimony, beryllium, cadmium, copper, lead, mercury and zinc	2 mg/m <sup>3</sup>	Periodic over minimum 1-hour period	Bi-annual	BS EN 14385 and MID



**Table S3.1b Point source emissions to air – emission limits and monitoring requirements**  
**Effective from 30 June 2020**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period <sup>Note 1</sup></b>	<b>Monitoring frequency <sup>Note 1</sup></b>	<b>Monitoring standard or method <sup>Note 1</sup></b>
A1 [Point A1 on site plan in Schedule 7]	Wet scrubber serving acid dissolution process	Oxides of nitrogen NO <sub>x</sub> (NO and NO <sub>2</sub> , expressed as NO <sub>2</sub> )	75 mg/Nm <sup>3</sup>	Average over the sampling period	Once per year	BS EN 14792
		Gaseous chlorides, expressed as HCl	10 mg/Nm <sup>3</sup>	Average over the sampling period	Once per year	BS EN 1911
		Chlorine Cl <sub>2</sub>	2 mg/Nm <sup>3</sup>	Average over the sampling period	Once per year	
A4 [Point A4 on site plan in schedule 7]	Wet scrubber and bag filter serving old ashing down plant and melting furnaces	Particulate matter	5 mg/Nm <sup>3</sup>	Average over the sampling period	Once per year	BS EN 13284-1 and MID
		Dioxins and furans PCDD/F	0.1 I-TEQ ng/Nm <sup>3</sup>	Average over a sampling period of at least six hours	Once per year	BS EN 1948 parts 1, 2 and 3 and MID
		Sulphur dioxide	50 mg/m <sup>3</sup>	Average over the sampling period	Once per year	BS EN 14791
A5 [Point A5 on site plan in schedule 7]	Quench tower and bag filter serving new ashing down plant	Particulate matter	5 mg/Nm <sup>3</sup>	Average over the sampling period	Once per year	BS EN 13284-1 and MID
		Dioxins and furans PCDD/F	0.1 I-TEQ ng/Nm <sup>3</sup>	Average over a sampling period of at least six hours	Once per year	BS EN 1948 parts 1, 2 and 3 and MID
		Sulphur dioxide	50 mg/m <sup>3</sup>	Average over the sampling period	Once per year	BS EN 14791

Note 1: Monitoring to be undertaken in accordance with stated requirements in Table S3.1b pending completion of Improvement Condition IC02 in Table S1.3.

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

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 on site plan in schedule 7, emission to Severn Trent Water treatment plant	Rainwater from external bunded areas (includes Penstock valve)	No parameters set	No limits set	-	-	-

## Schedule 4 – Reporting

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

<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air Parameters as required by condition 3.5.1.	For parameters specified in Table 3.1a (effective until 29 June 2020) A1, A4, A5	Every 6 months	1 January
	For parameters specified in Table 3.1b (effective from 30 June 2020) A1, A4, A5	Every 12 months	1 January, 1 July

<b>Parameter</b>	<b>Units</b>
-	-

<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Total raw material (RM) used	Annually	tonnes
Tonnes of liquid effluent tankered off-site	Annually	tonnes/tonne RM

<b>Table S4.4 Reporting forms</b>		
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Air	Form air 1 or other form as agreed in writing by the Environment Agency	19/06/2018
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	19/06/2018
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	19/06/2018
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	19/06/2018
Waste subject to conditions 4.2.5	Waste tonnage return from the Environment Agency website or other form as agreed in writing by the Environment Agency	13/08/2015

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

## Part A

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

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

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

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

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

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

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

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“average over the sampling period” means the average value of three consecutive measurements of at least 30 minutes each, unless otherwise stated, as defined in the General Considerations section of the Non-Ferrous Metals BAT Conclusions. For batch processes, the average of a representative number of measurements taken over the total batch time or the result of a measurement carried out over the total batch time can be used.

“BAT-AELs” means BAT-associated emission levels, i.e. the emission levels associated with the best available techniques for emissions to air and/or water, as set out in the Non-Ferrous Metals BAT Conclusions.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

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

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

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

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

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

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- in relation to emissions from combustion processes and not subject to BAT-AELs for air emissions, the concentration in dry air at a temperature of 273.15K, at a pressure of 101.3 kPa, and with an oxygen content of 3% dry for liquid and gaseous fuels and 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources and not subject to BAT-AELs for air emissions, the concentration at a temperature of 273.15K and at a pressure of 101.3 kPa, with no correction for water vapour content; and/or
- in relation to emissions from non-combustion sources subject to BAT-AELs for air emissions, the concentration in dry air at a temperature of 273.15K and at a pressure of 101.3 kPa; and/or
- in relation to emissions from combustion processes subject to BAT-AELs for air emissions, the concentration in dry air at a temperature of 273.15K and at a pressure of 101.3 kPa, and with an oxygen content of 3% dry for liquid and gaseous fuels and 6% dry for solid fuels.

For the determination of the toxic equivalence (I-TEQ) value stated as a release limit the mass concentrations of the following dioxins and furans have to be multiplied with their equivalence factors before summing.

Equivalence factor:

**Dioxins**

2,3,7,8 Tetrachlordibenzodioxin (TCDD)	1
1,2,3,7,8 Pentachlordibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8 Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9 Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8 Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8 Heptachlordibenzodioxin (HpCDD)	0.01
Octachlordibenzodioxin (OCDD)	0.001

**Furans**

2,3,7,8 Tetrachlorodibenzofuran (TCDF)	0.1
2,3,4,7,8 Pentachlorodibenzofuran (PeCDF)	0.5
1,2,3,7,8 Pentachlorodibenzofuran (PeCDF)	0.05
1,2,3,4,7,8 Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,7,8,9 Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,6,7,8 Hexachlorodibenzofuran (HxCDF)	0.1
2,3,4,6,7,8 Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8 Heptachlorodibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9 Heptachlorodibenzofuran (HpCDF)	0.01
Octachlorodibenzofuran (OCDF)	0.001



When the following terms appear in the waste code list in Schedule 2, table 2.2, for that table, they have the meaning given below:

“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“heavy metal” means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“PCBs” means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005% by weight.

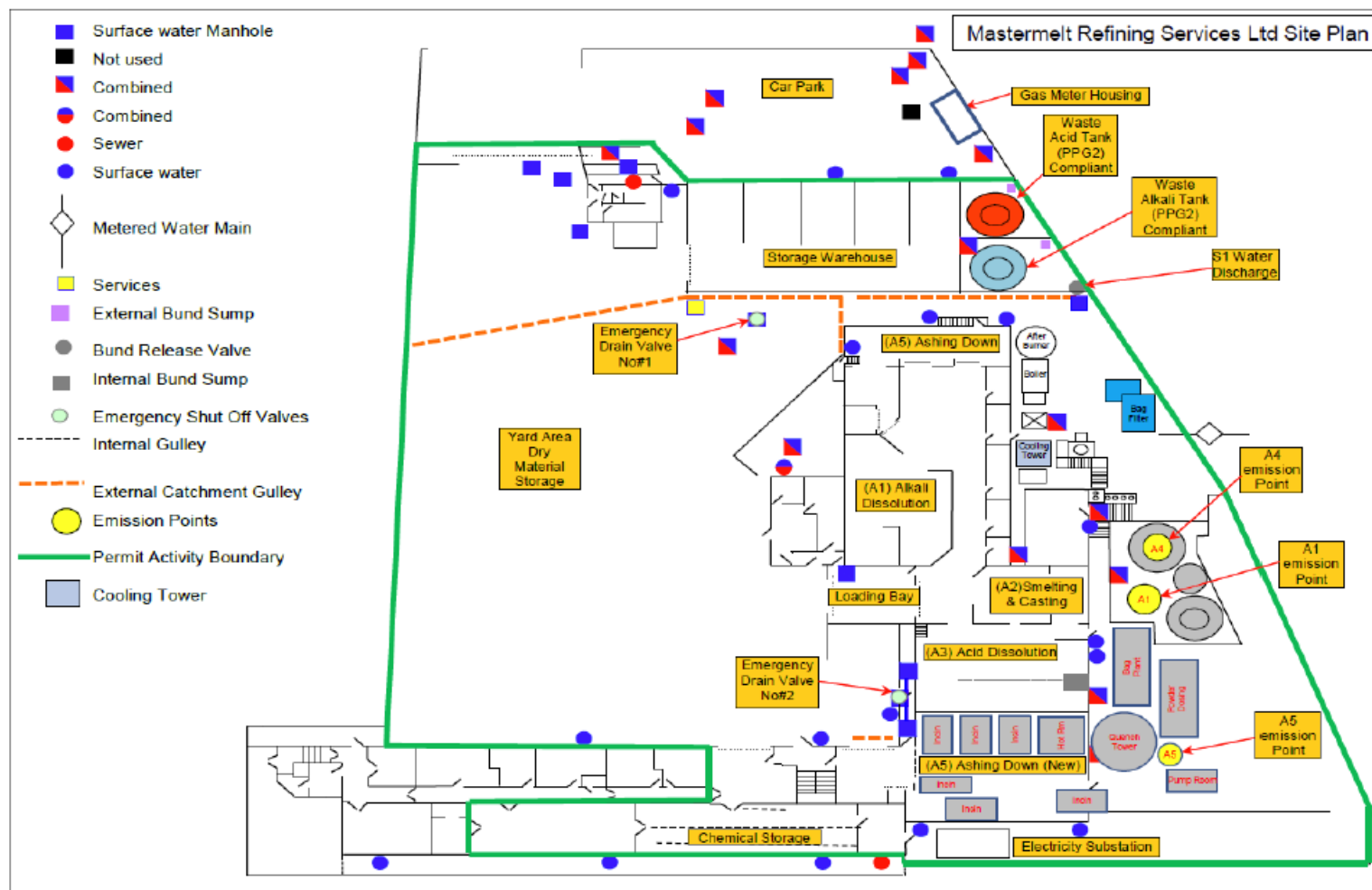
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

“partly stabilised wastes” means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

# Schedule 7 – Site plan



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END OF PERMIT

Permit number  
EPR/BL1312IE