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**Natural  
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Wales

## **Permit with introductory note**

The Environmental Permitting (England & Wales) Regulations 2016

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**Real Alloy UK Limited**

**Waunarlwydd Works  
Waunarlwydd  
Swansea  
SA5 4SF**

Permit number

**EPR/EP3935UC**

# Waunarlwydd Works

## Permit number EPR/EP3935UC

### Introductory note

**This introductory note does not form a part of the permit**

The main features of the permit are as follows.

The operation of Waunarlwydd works is designed to recover aluminium metal from secondary sourced aluminium scrap materials and used beverage cans. The main raw materials are scrap aluminium and the sorbent additives lime/carbon and sodium bicarbonate (used for abatement of acid gases). The raw materials are melted in 2 oxy-fuel furnaces and the molten aluminium drained away into moulds. The remaining contaminants are removed from the base of the furnace and sent for re-processing to remove the remaining aluminium and recycle the salt flux.

The operation involves the processing of non-ferrous metals from secondary raw materials by metallurgical means. The operation also involves the treatment through shredding and baling of the scrap aluminium (of up to 3000 kg/hour) prior to the main recovery and melting process in the blast furnace.

Both rotary furnaces use a oxygen enriched (oxy-fuel) combustion systems with an associated oxygen plant to supply the combustion process adjacent to the furnace area.

The site has a single bag house abatement plant with a 23m stack listed in the permit as emission point A4.

The installation also has a 1.5 tonne single rotary furnace to be used for the sampling and analysis of batches of scrap aluminium. Emissions from this furnace are captured via an extension to the local exhaust ventilation system and routed to the site's bag filtration plant.

The installation stores up to 25000 tonnes of salt slag that is produced on site. The salt slag is sorted indoor away from sources of water in the saltcake storage building located in the southern part of the installation.

The installation is located on an industrial estate on the western edge of Swansea, referred to as Waunarlwydd Works and has 8 European habitat sites within 10km. The nearest residential areas to the installation are Waunarlwydd located approximately 50 meters to the south of the site and Gowerton, located approximately 520 meters to the west of the installation boundary.

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

| Status log of the permit |                        |  |
|--------------------------|------------------------|--|
| Description              | Date                   | Comments                                       |
| Application BM 1384      | Received<br>14/12/2001 |  |
| Additional information   | 20/02/2002             | Response to 1 <sup>st</sup> Schedule 4 notice. |

|  |   |  |
|--|---|--|
| received   |   |  |
| Additional information received.   | 18/07/2002                                  | Response to 2 <sup>nd</sup> Schedule 4 notice.   |
| Additional information received.   | 18/07/2002                                  | Response to 3 <sup>rd</sup> Schedule 4 notice.   |
| Additional information received.   | 18/07/2002                                  | Response to 4 <sup>th</sup> Schedule 4 notice.   |
| Additional information received.   | 18/07/2002                                  | Response to 5th Schedule 4 notice.   |
| Request by the Environment Agency to extend determination date from 27/08/02 to 27/11/02 | Request dated 19/07/2002                    | Request accepted 24/07/2002  |
| Request by the Environment Agency to extend determination date from 27/11/02 to 27/02/03 | Request dated 28/10/2002                    | Request accepted 30/10/2002  |
| Permit BM 1385   | Granted 05/09/2003                          |  |
| Variation notice BX1411  | Effective 19/01/2004                        | Reduction in emission limits and addition of improvement condition 9.14  |
| Variation notice WP3339SP  | Effective 18/01/2005                        | Addition of 4 further Improvement Conditions (9.15 to 9.18) linked to raw material storage, unauthorised release of aluminium, furnace fumes on start-up and addition of a higher percentage of oily material/ thermal breaks to furnace. Setting of limits for ammoniacal nitrogen to water and sulphur dioxide to air. |
| Variation notice GP4232MN  | Effective 29/06/2007                        | Amendment of SO2 limits for release point A4 and changes in sampling frequencies for some surface water determinants. Additional improvement items requiring investigation into site surface water also included. Schedule d1 has been renamed to Schedule 1.  |
| Transfer EP3935UC (T001)   | Received 01/03/2007<br>Effective 26/07/2007 | Whole transfer from IMCO Recycling (UK) Ltd to Aleris Recycling (Swansea) Ltd. Consolidation of permit conditions.   |
| Variation application EPR/EP3935UC/V002  | Duly made 09/08/2013                        | Application to replace bag house plants and introduce an oxy-fuel combustion system.   |
| Additional information received  | 17/10/2013                                  | Revised Part A, Part C3 and updated emission point plan.   |
| Additional information   | 30/11/2013                                  | Confirmation of monitoring   |

received

standards and proposals for supplying baseline groundwater data.

|   |                       |  |
|---|-----------------------|--|
| Variation<br>EPR/EP3935UC/V002  | 11/12/2013            | Varied and consolidated permit issued in modern condition format.  |
| Variation application<br>EPR/EP3935UC/V003  | Duly made<br>09/06/15 | Administrative variation to reflect company name change.   |
| Variation application<br>EPR/EP3935UC/V003<br>determined  | 03/07/15              | Variation issued.  |
| Variation application<br>EPR/EP3935UC/V004  | Duly made<br>28/08/15 | Application to increase installation boundary and include 1.5 tonne rotary furnace.  |
| Additional information<br>requested   | 11/11/15              | Revised site plan and pollution control measures for additional aluminium scrap storage areas.   |
| Additional information<br>received  | 18/12/15              | Revised site plan and information regarding storage pollution control received.  |
| Additional information<br>requested   | 17/11/15              | Revised raw materials and wastes storage and handling description document, including plan showing storage locations for raw materials and wastes. |
| Additional information<br>received  | 18/12/15              | Raw materials and wastes storage and handling document and plan received.  |
| Variation application<br>EPR/EP3935UC/V004<br>determined  | 05/02/16              | Variation issued.  |
| Regulation 60(1) Notice of<br>request for information   | 27/07/16              |  |
| Regulation 60(1)<br>response received   | 31/10/16              | Implementation of BAT conclusions under IED  |
| Natural Resources Wales<br>Non-Ferrous Metals<br>Sector Review 2016<br>Permit EPR/EP3935UC<br>Variation issued<br>EPR/EP3935UC/V005 | 26/04/17              | Varied and consolidated permit issued in modern IED condition format.  |
| Variation application<br>EPR/EP3935UC/V006  | Duly Made<br>16/11/17 | Application to increase installation boundary for storage of salt slag produced on site.   |
| Variation application<br>EPR/EP3935UC/V006<br>determined  | 31/01/18              | Variation issued   |
| Variation application   | 07/01/19              | Application to increase the installation boundary for addition storage of salt slag  |

|  |                         |   |
|--|-------------------------|---|
| Variation determined<br>EPR/EP3935UC/V007                  | 27/01/20                | Variation issued  |
| Variation application<br>PAN-017925<br>(EPR/EP3935UC/V008) | Duly Made<br>08/09/2022 | Application to include the installation of a shredder and associated balers on site to process incoming material, Increase the waste throughput to 80,250 tonnes per annum and Increase the maximum quantity of salt slag storage to 25,000 tonnes per annum. |
| Variation application<br>PAN-017925<br>(EPR/EP3935UC/V008) | 16/11/2022              | Response to schedule 5 notice on H1 modelling   |
| Variation application<br>PAN-017925<br>(EPR/EP3935UC/V008) | 06/01/2023              | Response to schedule 5 for a fire prevention and mitigation plan  |
| Variation application<br>PAN-017925<br>(EPR/EP3935UC/V008) | 10/01/2023              | Submission of detailed modelling.   |
| Variation determined<br>EPR/EP3935UC/V008                  | 21/02/2023              | Variation determined  |

End of introductory note

# Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

**EPR/EP3935UC**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/EP3935UC/V008 authorising,

**Real Alloy UK Limited** (“the operator”),

whose registered office is  
**Westfield Industrial Park**  
**Waunarlwydd**  
**Swansea**  
**SA5 4SF**

company registration number **03221771**

to operate an installation at  
**Waunarlwydd Works**  
**Waunarlwydd**  
**Swansea**  
**SA5 4SF**

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

Signed

Date

|                    |                 |
|--------------------|-----------------|
| <b>David Poole</b> | <b>21/02/23</b> |
|--------------------|-----------------|

Authorised on behalf of Natural Resources Wales

# Conditions

## 1 Management

### 1.1 General management

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

### 1.2 Energy efficiency

- 1.2.1 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”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1, A2, Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1
  - (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.
  - (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales 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 Natural Resources Wales.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted if:
  - (a) it is of a type and quantity listed in schedule 2 table S2.2; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
  - (a) the nature of the process producing the waste;
  - (b) the composition of the waste;



- (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.6 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

## **2.4 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 Natural Resources Wales.
- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales 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 S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in tables schedule 3 S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 3.1.4 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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.

- 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 Natural Resources Wales, 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 Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales 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 Natural Resources Wales.

### **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 Natural Resources Wales, 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 Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2;
- 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 Natural Resources Wales.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by Natural Resources Wales.

## **3.6 Fire**

- 3.6.1 The operator shall manage and operate the activities in accordance with a written fire prevention plan using the current, relevant fire prevention plan guidance.
- 3.6.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities could cause a fire risk, submit to Natural Resources Wales a fire prevention plan which identifies and minimises the risks of fire;
  - (b) operate the activity in accordance with the fire prevention plan, from the date of submission, unless otherwise agreed in writing by Natural Resources Wales.

# **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 Natural Resources Wales, 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 Natural Resources Wales.

## **4.2 Reporting**

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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 Natural Resources Wales, 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 Natural Resources Wales, 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 Natural Resources Wales 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.
- 4.2.6 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

### **4.3 Notifications**

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

- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales 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.
- 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) Natural Resources Wales 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 Natural Resources Wales 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

**Table S1.1 activities**

| Activity reference                  | Activity listed in Schedule 1 of the EP Regulations   | Description of specified activity and WFD Annex I and II operations  | Limits of specified activity and waste types  |
|-------------------------------------|---|--|---|
| A1                                  | S2.2 A1(b) i  | Melting, including making alloys, of non-ferrous metals, including recovered products and the operation of non ferrous metal foundries where the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals' | The limits of specified and associated activities collectively comprise all activities carried out in the installation between the receipt of raw materials and the supply of finished products.<br><br>Waste types as specified in Table S2.2.   |
|                                     |   | Description of activities for waste operations   | Limits of activities  |
| A2                                  | Shredding and baling of waste<br>R4: Recycling/reclamation of metals and metal compound<br><br>Storage of waste prior to Melting, including making alloys (activity A1)<br>R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) |  | The limits of specified and associated activities collectively comprise all activities carried out in the installation between the receipt of raw materials and the supply of finished products.<br><br>Only waste listed under Table S2.2<br>Storage for secondary sources of aluminium scrap materials restricted to areas shown on Site layout plan in Schedule 7.<br><br>Treatment of waste limited to size reduction of incoming waste and compaction prior to processing. No more than 3000 kg/hour.<br><br>All processing activities will take place within an enclosed building upon an impermeable surface |
| <b>Directly Associated Activity</b> |   |  |   |
| A3                                  | Sampling and analysis of aluminium alloys and aluminium scrap metal.  |  | Batch melting of aluminium alloys and aluminium scrap material in a 1.5 tonne rotary furnace to produce samples for analysis  |
| A4                                  | Storage of salt slag  | Storage of salt slag prior to removal  | No more than 25000 tonnes to be stored at any time.   |

**Table S1.2 Operating techniques**

| <b>Description</b>  | <b>Parts</b>  | <b>Date Received</b>   |
|---|---|--|
| Application   | The response to question B2.1, B2.2, B2.3, B2.4 B2.5, B2.7, B2.8, B2.9, B2.10, B2.11 and B2.12 in the application.                      | 14/12/2001   |
| Response to 1 <sup>st</sup> Schedule 4 notice                           | Response to questions 2 to 19 inclusive.  | 20/02/2002   |
| Response to 2 <sup>nd</sup> Schedule 4 notice                           | Response to questions 22, 23 and 26 to 46 inclusively.  | 18/07/2002   |
| Response to 3 <sup>rd</sup> Schedule 4 notice                           | Response to question 54.  | 31/10/2002   |
| Response to 4 <sup>th</sup> Schedule 4 notice                           | Response to questions 22.   | 18/12/2002   |
| Variation application EPR/EP3935UC/V002                                 | Sections 3.3, 4.1, 4.2, 4.3 and 4.4 in supporting document SOL0113AL01 Volume 1.  | 09/08/2013   |
| Further information received  | Confirmation of emission monitoring standards.  | 30/11/2013   |
| Variation application EPR/EP3935UC/V004                                 | Sections 2.3, 2.4 in supporting document SOL1503RA01.   | 28/08/2015   |
| Response to Schedule 5 notice   | Confirmation of pollution control measures in place for additional aluminium scrap storage  | 18/12/2015   |
| Response to Schedule 5 notice   | Report 'SOL1503RA01 Schedule 5 response' on raw materials and waste storage and handling.   | 18/12/2015   |
| Variation application EPR/EP3935UC/V006                                 | Section 2.3 in supporting document SOL1710RA01.   | 27/10/2017   |
| Variation Application EPR/EP3935UC/V008                                 | Permit variation supporting document sections 2 to 4  | 04/05/2022   |
| Variation Application EPR/EP3935UC/V008                                 | Preliminary noise management plan; Section 8.2 and appendix E of REAL ALLOY ENVIRONMENTAL NOISE IMPACT ASSESSMENT P1970-REP02-REV A-BDH | 04/05/2022   |
| Variation Application EPR/EP3935UC/V008                                 | Accident management plan  | 08/09/2022   |
| Variation Application schedule 5 response EPR/EP3935UC/V008             | Fire prevention Plan  | 06/01/2023<br>(initial)<br>Revised<br>version upon<br>completion of<br>IC8 |
| Finalised Noise management plan (response to improvement program IC 7b) | Finalised Noise management plan   | Upon<br>completion of<br>IC7b  |

**Table S1.3 Improvement programme requirements**

| Reference | Requirement   | Date  |
|-----------|---|---|
| IC1       | The Operator shall submit a report to Natural Resources Wales detailing proposals for the location of and installation of new monitoring wells. The report shall set out proposed timescales for obtaining soil and groundwater reference data to set a baseline for the additional area of land used for the storage of used beverage containers.  | Completed   |
| IC2       | The operator shall submit to Natural Resources Wales a risk assessment including baseline data obtained as a result of investigations carried out in line with IC1. The risk assessment shall include an explanation for the potential for fugitive releases to ground and surface waters from the activity of storing the baled aluminium feedstock.   | Completed   |
| IC3       | <p>The operator shall submit, for approval by Natural Resources Wales, a report setting out progress to achieving the BAT Conclusions and BAT-AEL's where BAT is currently not achieved, but will be achieved by the 30th June 2020. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Current performance against the BAT Conclusions and BAT-AEL.</li> <li>2. Methodology for reaching the AELs.</li> <li>3. Associated targets / timelines for reaching compliance by 30th June 2020.</li> </ol> <p>The report shall address all of the relevant BAT Conclusions</p> | Completed   |
| IC4       | The Operator shall submit a report to Natural Resources Wales detailing the results of a survey into the building integrity of the salt slag storage building which has been included into the installation boundary by this permit variation. This survey will have assessed the integrity of the building with reference to the potential escape of pollution and the potential ingress of water  | Three months from issue of this permit variation V006 |
| IC5       | If any improvements to the integrity of the building are necessary following the survey and report required by IC4, then a programme of work will be produced to carry out these improvements.  | Within two months from the completion of IC4          |
| IC6       | The Operator shall undertake an assessment and detailed analysis of hazardous materials including maximum quantities of materials stored on site and review against the Control of Major Accident Hazards Regulations 2015. On completion of the assessment the report will be submitted to Natural Resources Wales   | 30/04/2020  |



**Table S1.3 Improvement programme requirements**

| Reference | Requirement   | Date   |
|-----------|---|--|
| IC7a      | <p>The Operator shall undertake noise monitoring to demonstrate that the maximum sound pressure levels does not exceed the limits outlined in the preliminary noise impact assessment.</p> <p>An addendum to the existing noise impact assessment for the site shall be submitted to Natural Resources Wales for approval. This shall:</p> <ul style="list-style-type: none"> <li>• Meet BS4142:2014+A1:2019 standards</li> <li>• Reference to the Welsh Government Noise and soundscape action plan 2018-2023</li> <li>• 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise.</li> </ul> <p>The amended noise impact assessment should also contain confirmation of the sound power level of the ID fan stack is equal or less than the modelled result</p> <p>The Operator shall submit the revised noise impact assessment to Natural Resources Wales for approval.</p> <p>The report shall make reference to the predictions and noise level outlined in the preliminary noise impact assessment.</p>   | <p>Within 3 months of commissioning of the shredder and baler or as otherwise agreed in writing with Natural Resources Wales</p> |
| IC7b      | <p>The Operator shall submit an finalised noise management plan. This should include any additional mitigations measures if the noise levels in the noise impact assessment for IC7a exceed any of the predictions outline in the original noise impact assessment and preliminary noise management plan submitted for permit variation V008.</p> <p>The report shall be completed in line with the current relevant guidance and submitted to Natural Resources Wales for approval.</p>  | <p>Within 6 months of commissioning of the shredder and baler or as otherwise agreed in writing with Natural Resources Wales</p> |
| IC8       | <p>The Operator shall submit to Natural Resources Wales, and obtain Natural Resources Wales written approval to it, a revised Fire Prevention and Mitigation Plan (FPMP) for the installation. The report shall follow the FPMP requirements in the most recent guidance available on the Natural Resource Wales website (<a href="https://naturalresources.wales/permits-and-permissions/environmental-permits/guidance-to-help-you-comply-with-your-environmental-permit/?lang=en">https://naturalresources.wales/permits-and-permissions/environmental-permits/guidance-to-help-you-comply-with-your-environmental-permit/?lang=en</a>) or demonstrate equivalence to this, and shall address all outstanding information issues identified by the Operator or Natural Resources Wales. These outstanding issues to be include, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>• More details on the storage of the baled waste</li> <li>• More information on the fire resistance period of the walls</li> <li>• Risk of tramp metal getting into move machinery</li> <li>• More details on any circumstances that would warrant a review of the Plan</li> </ul> | <p>6 Months following variation of V008</p>  |

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

**Table S2.1 Raw materials and fuels**

| Raw materials and fuel description | Specification |
|------------------------------------|---------------|
| None Specified                     | -             |

**Table S2.2 Permitted waste types for secondary aluminium accepted onto site**

| Maximum quantity | <i>The maximum quantity for waste to be accepted on site shall not exceed 80,250 tonnes per year.</i>   |  |
|------------------|---|--|
| Waste code       | Description   |  |
| <b>02</b>        | <b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b>   |  |
| <b>02 01</b>     | <b>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>  |  |
| 02 01 10         | waste metal   |  |
| <b>10</b>        | <b>WASTES FROM THERMAL PROCESSES</b>  |  |
| <b>10 03</b>     | <b>wastes from aluminium thermal metallurgy</b>   |  |
| 10 03 04*        | primary production slags  |  |
| 10 03 05         | waste alumina   |  |
| 10 03 09*        | black drosses from secondary production   |  |
| 10 03 15*        | skimmings that are flammable or emit, upon contact with water, flammable gases in hazardous quantities  |  |
| 10 03 16         | skimmings other than those mentioned in 10 03 15  |  |
| <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 01         | ferrous metal filings and turnings  |  |
| 12 01 02         | ferrous metal dust and particles  |  |
| 12 01 03         | non-ferrous metal filings and turnings  |  |
| 12 01 04         | non-ferrous metal dust and particles  |  |
| <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 04         | metallic packaging  |  |
| 15 01 11*        | metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers   |  |
| <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 17         | ferrous metal   |  |
| 16 01 18         | non-ferrous metal   |  |
| <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 02         | aluminium   |  |

**Table S2.2 Permitted waste types for secondary aluminium accepted onto site**

Maximum quantity     *The maximum quantity for waste to be accepted on site shall not exceed 80,250 tonnes per year.*

| <b>Waste code</b> | <b>Description</b>   |
|-------------------|--|
| 17 04 05          | iron and steel   |
| 17 04 07          | mixed metals   |
| 17 04 09*         | metal waste contaminated with hazardous substances   |
| <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 01</b>      | <b>wastes from incineration or pyrolysis of waste</b>  |
| 19 01 02          | ferrous materials removed from bottom ash  |
| <b>19 10</b>      | <b>wastes from shredding of metal-containing wastes</b>  |
| 19 10 01          | iron and steel waste   |
| 19 10 02          | non-ferrous waste  |
| <b>19 12</b>      | <b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>  |
| 19 12 02          | ferrous metal  |
| 19 12 03          | non-ferrous metal  |
| <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 40          | metals   |

## Schedule 3 – Emissions and monitoring

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

| Emission point ref. & location                     | Source  | Parameter                                | Limit (including unit) | Reference Period          | Monitoring frequency  | Monitoring standard or method <sup>1</sup> |
|--|---|--|------------------------|---------------------------|---|--|
| A4 as shown on emissions point plan in Schedule 7. | Release from furnaces, post bag house filter. | Particulate matter                       | 5 mg/m <sup>3</sup>    | Rolling 3 hour average    | Continuous  | BS EN 13284-1 and MID                      |
|  |   | Oxides of Nitrogen (as NO <sub>2</sub> ) | 60 mg/m <sup>3</sup>   | Average extractive sample | Bi-annually (minimum interval between extractive monitoring 5 months) | BS EN 14792 and MID                        |
|  |   | Hydrogen Chloride                        | 10 mg/m <sup>3</sup>   | Average extractive sample | Quarterly (minimum interval between extractive monitoring 2 months)   | BS EN 1911                                 |
|  |   | Volatile Organic Compounds (as carbon)   | 30 mg/m <sup>3</sup>   | Average extractive sample | Quarterly (minimum interval between extractive monitoring 2 months)   | BS EN 12619                                |

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

| Emission point ref. & location | Source | Parameter         | Limit (including unit) | Reference Period                                | Monitoring frequency  | Monitoring standard or method <sup>1</sup> |
|--------------------------------|--------|-------------------|------------------------|---|---|--|
|                                |        | Sulphur Dioxide   | 50 mg/m <sup>3</sup>   | Average extractive sample                       | Quarterly (minimum interval between extractive monitoring 2 months)   | BS EN 14791                                |
|                                |        | Fluorides (as HF) | 1 mg/m <sup>3</sup>    | Periodic over minimum 1 hr period               | Bi-annually (minimum interval between extractive monitoring 5 months) | BS ISO 15713 and MID                       |
|                                |        | Dioxins (ITEQ)    | 0.1 ng/m <sup>3</sup>  | Periodic minimum 6 hours, maximum 8 hour period | Annually (minimum interval between extractive monitoring 11 months)   | BS EN 1948 Parts 1, 2 and 3 and MID        |

Note<sup>1</sup> Measurements for the determination of concentrations of substances specified in this Permit shall be carried out representatively. Where the activity giving rise to the substances measured is operated on a batch basis, extractive sampling shall be carried out to include the period of peak emissions and exclude periods outside the batch cycle.

**Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

| Emission point ref. & location | Source  | Parameter              | Limit (incl. Unit) | Reference period | Monitoring frequency | Monitoring standard or method |
|--------------------------------|---|------------------------|--------------------|------------------|----------------------|-------------------------------|
|                                | Site surface water drains discharge point after interceptor | Total suspended solids | 50 mg/l            | Spot sample      | Monthly              | BS EN 872                     |

**Table S3.2 Point source emissions to water (other than sewer) and land – 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> |
|--|---------------|---|---------------------------|-------------------------|-----------------------------|--------------------------------------|
| WA1 as shown on emissions point plan in Schedule 7 |               | Total dissolved solids  | 1,200 mg/l                | Spot sample             | Monthly                     | SCA blue book 105 ISBN 011751957X    |
|  |               | Oil and grease  | 10 mg/l                   | Spot sample             | Monthly                     | Visual                               |
|  |               | Copper and its compounds, expressed as copper (Total Cu)      | 0.25 mg/l                 | Spot sample             | 6 monthly                   | BS EN ISO 15586                      |
|  |               | Lead and its compounds expressed as lead (Total Pb)           | 0.1 mg/l                  | Spot sample             | 6 monthly                   | BS EN ISO 15586                      |
|  |               | Tin and its compounds expressed as tin (Total Sn)             | 0.1 mg/l                  | Spot sample             | 6 monthly                   | BS EN ISO 15586                      |
|  |               | Zinc and its compounds expressed as zinc (Total Zn)           | 0.5 mg/l                  | Spot sample             | 6 monthly                   | BS EN ISO 15586                      |
|  |               | Aluminium and its compounds expressed as aluminium (Total Al) | 1.5 mg/l                  | Spot sample             | Monthly                     | BS EN ISO 15586                      |
|  |               | Mercury and its compounds expressed as mercury (Total Hg)     | 0.075 mg/l                | Spot sample             | 6 monthly                   | BS EN ISO 17852                      |

**Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

| Emission point<br>ref. & location | Source | Parameter  | Limit (incl. Unit) | Reference<br>period | Monitoring<br>frequency | Monitoring standard or method |
|-----------------------------------|--------|--|--------------------|---------------------|-------------------------|-------------------------------|
|                                   |        | Arsenic and its<br>compounds<br>expressed as<br>arsenic (Total As) | 0.1 mg/l           | Spot sample         | 6 monthly               | BS EN ISO 17852               |
|                                   |        | Nickel and its<br>compounds<br>expressed as<br>nickel (Total Ni)   | 0.5 mg/l           | Spot sample         | 6 monthly               | BS EN ISO 17852               |
|                                   |        | Ammoniacal<br>nitrogen<br>expressed as<br>Nitrogen (Total N)       | 1.5 mg/l           | Spot sample         | Monthly                 | BS 6068-2.7 ISO 5664          |
|                                   |        | pH   | 6.0 - 9.0          | Spot sample         | Monthly                 | BS ISO 10523                  |

**Table S3.3 Annual limits**

| <b>Substance</b>   | <b>Medium</b> | <b>Limit (including unit)</b> |
|--------------------|---------------|-------------------------------|
| Particulate matter | Air           | 4,500 kg in a year            |



## Schedule 4 - Reporting

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

**Table S4.1 Reporting of monitoring data**

| Parameter   | Emission or monitoring point/reference | Reporting period | Period begins |
|---|--|------------------|---------------|
| Emissions to air<br>Parameters as required by condition 4.2.3   | A4                                     | Quarterly        | 05/09/2003    |
| Emissions to water<br>Parameters as required by condition 4.2.3 | WA1                                    | Monthly          | 05/09/2003    |

**Table S4.2: Annual production/treatment**

| Parameter           | Units  |
|---------------------|--------|
| Aluminium recovered | tonnes |

**Table S4.3 Performance parameters**

| Parameter               | Frequency of assessment | Units  |
|-------------------------|-------------------------|--------|
| Water usage             | Annually                | tonnes |
| Energy usage            | Annually                | MWh    |
| Total raw material used | Annually                | tonnes |

**Table S4.4 Reporting forms**

| Media/parameter                  | Reporting format   | Date of form |
|----------------------------------|--|--------------|
| Air                              | Form A1 or other form as agreed in writing by Natural Resources Wales  | 21/02/2023   |
| Water                            | Form W1 or other form as agreed in writing by Natural Resources Wales  | 27/07/2007   |
| Water usage                      | Form water usage 1 or other form as agreed in writing by Natural Resources Wales   | 21/02/2023   |
| Energy usage                     | Form energy 1 or other form as agreed in writing by Natural Resources Wales  | 21/02/2023   |
| Other performance indicators     | Form performance 1 or other form as agreed in writing by Natural Resources Wales   | 21/02/2023   |
| Waste subject to Condition 4.2.5 | Waste returns spreadsheet from the Natural Resources Wales website or other form as agreed in writing by Natural Resources Wales | N/A          |

## 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                  | EPR/EP3935UC |
| Name of operator               |              |
| Location of Facility           |              |
| Time and date of the detection |              |

|  |  |
|--|--|
| <b>(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment</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 permit condition</b>           |  |
| <b>To be notified within 24 hours of detection unless otherwise specified below</b> |  |
| Emission point reference/ source  |  |
| Parameter(s)  |  |
| Limit   |  |
| Measured value and uncertainty  |  |
| Date and time of monitoring   |  |
| Measures taken, or intended to be taken, to stop the emission                       |  |

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

|  |  |
|--|--|
|  |  |
|  |  |

**(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:**

| To be notified within 24 hours of detection                     |  |
|---|--|
| 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.  |  |

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

\* authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

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

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

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

*“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 Natural Resources Wales under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

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

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

*“emissions to land”* includes emissions to groundwater.

*“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 (Wales) Regulations 2005 (as amended)

*“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

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

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

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

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

*“Waste code”* means the six digit code referable to a type of waste in accordance with the list of wastes established by Commission Decision 2000/532/EC as amended from time to time (the ‘List of Wastes Decision’) and in relation to hazardous waste, includes the asterisk.

*“Waste Framework Directive” or “WFD”* means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

*“year”* means calendar year ending 31 December.

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

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

- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on: all congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.

| <b>Congener</b>     | <b>I-TEF(1990)</b> | <b>WHO-TEF (1997/8)</b>     |             |              |
|---------------------|--------------------|-----------------------------|-------------|--------------|
|                     |                    | <b>Humans /<br/>Mammals</b> | <b>Fish</b> | <b>Birds</b> |
| <b>Dioxins</b>      |                    |                             |             |              |
| 2,3,7,8-TCDD        | 1                  | 1                           | 1           | 1            |
| 1,2,3,7,8-PeCDD     | 0.5                | 1                           | 1           | 1            |
| 1,2,3,4,7,8-HxCDD   | 0.1                | 0.1                         | 0.5         | 0.05         |
| 1,2,3,6,7,8-HxCDD   | 0.1                | 0.1                         | 0.01        | 0.01         |
| 1,2,3,7,8,9-HxCDD   | 0.1                | 0.1                         | 0.01        | 0.1          |
| 1,2,3,4,6,7,8-HpCDD | 0.01               | 0.01                        | 0.001       | <0.001       |
| OCDD                | 0.001              | 0.0001                      | -           | -            |
|                     |                    |                             |             |              |
| <b>Furans</b>       |                    |                             |             |              |
| 2,3,7,8-TCDF        | 0.1                | 0.1                         | 0.05        | 1            |
| 1,2,3,7,8-PeCDF     | 0.05               | 0.05                        | 0.05        | 0.1          |
| 2,3,4,7,8-PeCDF     | 0.5                | 0.5                         | 0.5         | 1            |
| 1,2,3,4,7,8-HxCDF   | 0.1                | 0.1                         | 0.1         | 0.1          |
| 1,2,3,7,8,9-HxCDF   | 0.1                | 0.1                         | 0.1         | 0.1          |
| 1,2,3,6,7,8-HxCDF   | 0.1                | 0.1                         | 0.1         | 0.1          |
| 2,3,4,6,7,8-HxCDF   | 0.1                | 0.1                         | 0.1         | 0.1          |
| 1,2,3,4,6,7,8-HpCDF | 0.01               | 0.01                        | 0.01        | 0.01         |
| 1,2,3,4,7,8,9-HpCDF | 0.01               | 0.01                        | 0.01        | 0.01         |
| OCDF                | 0.001              | 0.0001                      | 0.0001      | 0.0001       |

| <b>Congener</b>       | <b>WHO-TEF (1997/8)</b>     |             |              |
|-----------------------|-----------------------------|-------------|--------------|
|                       | <b>Humans /<br/>mammals</b> | <b>Fish</b> | <b>Birds</b> |
| <b>Non-ortho PCBs</b> |                             |             |              |
| 3,4,4',5'-TCB (81)    | 0.0001                      | 0.0005      | 0.1          |
| 3,3',4,4'-TCB (77)    | 0.0001                      | 0.0001      | 0.05         |

|                             |         |           |         |
|-----------------------------|---------|-----------|---------|
| 3,3',4,4',5 - PeCB (126)    | 0.1     | 0.005     | 0.1     |
| 3,3',4,4',5,5'-HxCB(169)    | 0.01    | 0.00005   | 0.001   |
|                             |         |           |         |
| <b>Mono-ortho PCBs</b>      |         |           |         |
| 2,3,3',4,4'-PeCB (105)      | 0.0001  | <0.000005 | 0.0001  |
| 2,3,4,4',5-PeCB (114)       | 0.0005  | <0.000005 | 0.0001  |
| 2,3',4,4',5-PeCB (118)      | 0.0001  | <0.000005 | 0.00001 |
| 2',3,4,4',5-PeCB (123)      | 0.0001  | <0.000005 | 0.00001 |
| 2,3,3',4,4',5-HxCB (156)    | 0.0005  | <0.000005 | 0.0001  |
| 2,3,3',4,4',5'-HxCB (157)   | 0.0005  | <0.000005 | 0.0001  |
| 2,3',4,4',5,5'-HxCB (167)   | 0.00001 | <0.000005 | 0.00001 |
| 2,3,3',4,4',5,5'-HpCB (189) | 0.0001  | <0.000005 | 0.00001 |

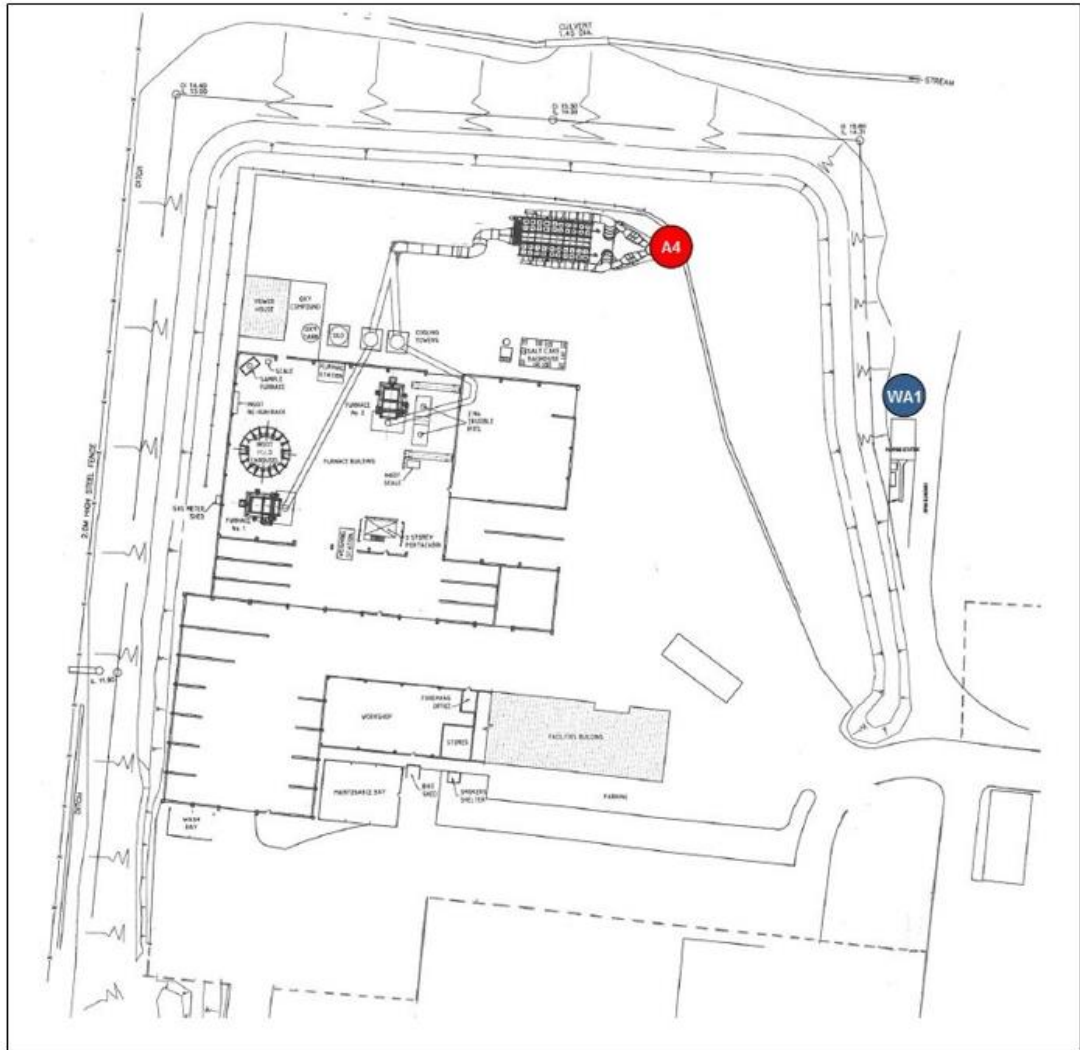
# Schedule 7 - Site plan

## Site Plan



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## Emission point plan



END OF PERMIT