Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Calder Industrial Materials Limited

Chester Leadworks
Jupiter Drive
Chester
CH1 4EX

Variation application number

EPR/BK9423IS/V010

Permit number

EPR/BK9423IS

Chester Leadworks
Permit number EPR/BK9423IS

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, 90, 92, 93, 94, 96, 98 and 107. The operator is already compliant with the BATc with the exception of 4, 5 and 10. We have set improvement condition in the varied permit to track progress against future compliance.

This variation also includes improvement conditions that require the operator to submit a Surface Water Risk Assessment (in line with the requirements of the Water Framework Directive) and an updated Baseline Report (in accordance with the Industrial Emissions Directive).

It is clarified in this variation that site drainage and cooling tower bleed is discharged to surface water drains.

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

Chester Leadworks (the installation) is operated by Calder Industrial Materials Limited and is located in Chester, Cheshire, England.

The site is located on the Chester West Employment Park at National Grid Reference SJ 3841 6668, approximately 2 kilometres from the centre of Chester. There is one Site of Special Scientific Interest (River Dee), one Special Area of Conservation (River Dee and Bala Lake) and two local wildlife sites within 2 kilometres of the site. The nearest residential dwellings are approximately 130 metres north of the site.

The installation falls into the Secondary Lead sub-sector, within the Non-Ferrous Metals sector. The main purpose of the activities at the installation is the manufacture and supply of lead products involving a range of activities including melting, casting, extruding, shot spinning and finishing processes.

The melting activity is listed under Schedule 1 Section 2.2 Part A(1)(b) –

Melting, including making alloys of, non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where –

(i) 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, and

(ii) Any furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes).

The total site lead melting capacity is 49,000 tonnes per annum.

All manufacturing activities are carried out within the workshops of two single steel-framework buildings referred to as Calder I and Calder II. The main activities in terms of lead usage in Calder I are pressure and gravity die-casting and the production of lead shot. Pressure die-casting machines are used to manufacture a range of products such as lead-acid battery terminals, counter balance weights, cable seals and washers, which range up to a few kilograms in weight. Gravity die-castings are prepared using melting vessels with a capacity of several kilograms up to 60 tonnes of lead. Products made from the larger castings include lead anodes, ballast weights and lead shielding for the nuclear industry. Lead shot is produced in a bespoke shot spinning plan, which is located in its own enclosure within the workshop building to minimise noise impact. Other products include extruded cable sheathing, forged medical pots, strip cast lead and lead wools.

The activities carried out in the fabrication area of the workshop (cell 18) are considered to be outside the scope of the installation and are not regulated under this permit. These activities relate primarily to lead cladding of steel panels.

Lead for the melting activities constitutes either ingots to standard alloy specifications or waste lead products. The alloy specifications of waste lead products used are consistent with those alloys currently manufactured at the installation. Lead ingots are stored within the workshop stores with the exception of lead for the shot spinning plant, which has its own dedicated storage area. Waste lead is stored either within the factory buildings or in the external yard areas.

The lead alloys are melted in refractory lined crucible furnaces, which are indirectly heated using natural gas. The exceptions to this are the automatic pressure die-casing (Dynacast) machines, which use electrical heating elements. The crucibles are charged either by hand, hoist or overhead crane depending on the size of the charge. The temperature of the molten materials ranges from 360^{o}C to 550^{o}C, depending on the alloy specification and operating process. Lead dross formed by surface oxidation of the molten metal is removed from all crucibles prior to casting. The dross is stored in covered steel containers prior to being consigned off-site to a refinery for recycling. The molten material is injected, poured or tapped into a casting mould (die) made of cast iron. The castings may be further processed using extruding, forging or machining techniques. All surplus lead generated by these activities and from the fabrication area is reused in the melting process.

Cooling water for the casting moulds is provided using a closed circuit refrigerated distribution system. Compressed air used by the installation including the automatic die-casting machines is provided by one of two screw compressors. Only one compressor unit is under load during normal demand.

Fume and particulate emissions from all crucibles are vented into an extraction system and through a pulsed reverse-jet fabric filter plant before discharging to atmosphere at emission point A1. The emissions from the filter plant are continuously monitored using a particulate analyser located in the exhaust stack. Two small degreasing units, using chlorinated solvents are also vented via the fabric filter plant. Both units are fitted with integral condenser systems to minimise solvent emissions.

Combustion gases from the crucible furnaces are ducted via one of two dedicated extract ventilation systems, which vent to atmosphere at opposite ends of the workshop (emission points A2 and A3).

Sheet lead is produced for the building industry in a dedicated melting/sheet rolling process located in Calder II. Two gas-fired 60 tonne melting pots abated by two bag filters in series (emission point A8) service two water cooled moulds to produce 3 tonne slabs. The slabs are either rolled hot or reheated from cold in

an oven. The rolled lead is discharged at the specified thickness onto an aluminium bobbin prior to slitting and sawing. All trimmings are returned for remelting and the dross consigned for recycling off-site.

The installation is also permitted to operate a 2 tonne capacity pyrolysis furnace which takes lead scrap contaminated with combustible substances (such as oil). This furnace is gas-fired and operates at a temperature designed to burn off the contamination. Any volatile substances are combusted in an afterburner and emissions to air are discharged through stack A1. The furnace is intended to reduce the risk of fires and to reduce particulate emissions, which can occur when contaminated scrap is melting in the existing lead melting plant.

Natural gas for the melting activity is taken from the mains gas supply. Electricity for the installation is supplied directly from the National Grid. The installation has no steam demand.

Measures used to minimise noise emissions include the use of acoustic and local enclosures and exhaust silencers. The location of plant items and use of noise attenuating material has also been incorporated in the building layout and design.

There are no permitted discharges direct to controlled waters. Surface water run-off from the deliveries yard enters surface water drains on Jupiter Drive via an oil/water interceptor. There are no permitted discharges to foul sewer from the installlation.

Hydraulic oils, cutting oils and degreasing solvents are stored in drums on polyethylene spill containment pallets local to the relevant production area. Light-oils, paints, release agent and other low volume materials are held in the workshops stores until required in the processing areas. There is no drainage system within the workshop buildings.

Waste oils and degreasing solvents are stored on spill containment pallets in dedicated areas within the workshop until consigned for recycling off-site. Dedicated waste storage containers are provided for dross, scrap ferrous metal, cardboard/paper and general non-hazardous waastes. These are located outside the workshop on the deliveries yard pending recycling or disposal as appropriate, off-site.

The operator has developed and implemented an Environmental Management System in accordance with ISO 14001.

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

Status log of the permit		
Description	**Date**	**Comments**
Application (under PPC 2000)	Dated 12/07/01 Received 12/07/2001	-
Supplementary Information	Not dated Received 12/12/2001	Modification to the text in Section 2.4 [Groundwater] of the application.
Response to Schedule 4 Part1 Notice	Not dated Received 14/12/2001	Schedule 4 Information Notice issued 22/11/2001.
Supplementary Information in response to Schedule 4 Part1 Notice	Dated 25/01/02 Received 25/01/2002	Letter to operator dated 14/01/2002.
Supplementary information in response to Schedule 4 Part1 Notice	Not dated Received 01/02/2002	Response to Section 2.7.3 of the application form following confirmation that no CCL agreement was in place.
Supplementary information in response to Schedule 4 Part1 Notice	Dated 11/02/02 Received 11/02/2002	Impact assessment of NO_x, CO and VOC emissions to air.

Status log of the permit		
Description	**Date**	**Comments**
Permit BK9423	Determined 01/03/2002	-
Application for variation, BV2034	Received 13/06/03 Determined 01/08/2003	-
Application for variation BV4835	Received 31/07/2003	-
Supplementary information provided in support of the application for variation	Dated 30/10/03 Received 08/11/2003	-
Supplementary information provided in support of the application for variation	Dated 07/11/03 Received 10/11/2003	-
Variation BV4835	Determined 13/11/2003	-
Application for variation MP3839MA	Dated 09/08/06 Received 15/08/2006	-
Supplementary information provided in support of the application for variation	Dated 21/09/06 Received 25/09/2006	-
Variation BV4835	Determined 01/12/2006	-
Application for variation (under EPR2010) EPR/BK9423IS/V005	Received 13/12/2010	-
Variation EPR/BK9423IS	Issued 03/02/2011	-
Application EPR/BK9423IS/V006 (variation and consolidation)	Duly made 16/10/2012	Application to vary and update the permit to modern conditions.
Additional information received	26/10/12, 14/11/2012	Revised and updated site plans received.
Variation determined EPR/BK9423IS/V006	29/11/2012	Varied and consolidated permit issued in modern condition format.
Application EPR/BK9423IS/V007 (administrative variation)	Duly made 07/12/2012	Agency led administrative variation to amend completion date for the improvement condition IC 01.
Variation determined EPR/BK9423IS/V007	19/12/2012	Varied permit.
Application EPR/BK9423IS/V008	n/a	Withdrawn.
Application EPR/BK9423IS/V009	Duly made 01/07/2016	-
Variation determined EPR/BK9423IS (billing ref LP3033DM)	07/10/2016	Varied permit issued.
Regulation 60 Notice dated 16/12/2016 (Notice requiring information for statutory review of permit)	Response Received 15/03/2017	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.

Status log of the permit		
Description	**Date**	**Comments**
Regulation 61 Notice dated 18/10/2017 (Notice requiring information for statutory review of permit)	Response Received 15/11/2017	Further information / clarification with regard to BAT conclusions 2-10, 14-16, 18-19, 90-94, 96, 98-99, 102, 107 and site condition report no: ED2776, RPS Consultants Ltd 2003.
EPR/BK9423IS/V010 (variation and consolidation) Variation determined EPR/BK9423IS (PAS / Billing Ref: XP3535JC)	27/02/2018	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/BK9423IS

Issued to

Calder Industrial Materials Limited ("the operator")

whose registered office is

C/O Calder Industrial Materials
Jupiter Drive
Chester
CH1 4EX

company registration number 00028073

to operate an installation at

Chester Leadworks
Jupiter Drive
Chester
CH1 4EX

to the extent set out in the schedules.

The notice shall take effect from 27/02/2018

Name	Date
Tom Swift	**27/02/2018**

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/BK9423IS

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BK9423IS/V010 authorising,

Calder Industrial Materials Limited ("the operator"),

whose registered office is

C/O Calder Industrial Materials
Jupiter Drive
Chester
CH1 4EX

company registration number 00028073

to operate an installation at

Chester Leadworks
Jupiter Drive
Chester
CH1 4EX

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

Name	Date
Tom Swift	**27/02/2018**

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:

( ) 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

(a) 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:

( ) take appropriate measures to ensure that energy is used efficiently in the activities;

(a) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(b) 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 table S2.2; 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.

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 undertaken.

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.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

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 listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity and waste types**
Section 2.2 A(1)(b)	Melting, including making alloys of, non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where- (i) 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, and (ii) any furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes. [Melting of lead and lead alloys.]	Charging of melting pot to transfer of lead product to finishing activities. Includes melting waste lead containing combustible contaminants in a pyrolysis furnace, prior to submission to other lead melting activities on site. Includes casting, extrusion and shot spinning of molten lead. Waste types and quantities as specified in Table S2.2.
Directly Associated Activity		
Raw materials storage and handling	Receipt, handling and storage of lead ingots, lead scrap and all process substances.	Receipt of raw materials until used in the process.
Finishing activities	Cast or extruded semi-finished products subjected to further finishing processes including rolling, slitting, sawing, extruding, forging, machining, lead wool and tin-coated lead strip production.	From storage, handling and finishing of cast or extruded semi-finished products to transfer to packaging and storage.
Effluent discharge to surface water	Discharge of site drainage and cooling tower bleed from the installation.	From interceptors to point of entry to surface water drains.
Off-gas collection and abatement.	Collection via ducting to abatement plant and discharge via stacks.	From localised extraction to stack exit.
Storage and handling of wastes	Handling, storing and removal of all wastes from site.	From waste production by the specified activities to waste leaving the site. Except wastes from finished products packaging and storage.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to question B2.1 given in section 2.1 of the application. The response to question B2.2 given in section 2.1 of the application regarding specification of waste products that can be accepted.	12/07/2001

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
	The response to question B2.3 given in section 2.3 of the application. The response to question B2.4 given in section 2.4 of the application. The response to question B2.5 given in section 2.5 of the application.	
Response to Schedule 4 Part 1 Notice	Response to questions 12 to 17 inclusive. Response to questions 18, 19, 21 and 22 regarding specification of waste products that can be accepted. Response to questions 23 to 58 inclusive. Response to questions 59 to 61 inclusive. Response to question 67.	14/12/2001
Supplementary Information in response to Schedule 4 Part 1 Notice	Response to questions 19, 21 and 22 regarding specification of waste products that can be accepted. Response to questions 25, 26, 28, 35, 37, 39, 41, 51, and 56.	25/01/2002
Application for variation BV2034	Response to question C1.2, C1.4, C2.4 and C2.5 (includes information on specification of waste products that can be accepted).	13/06/2003
Application for variation BV4835	Application for variation dated 31/07/2003 (includes information on specification of waste products that can be accepted).	31/07/2003
Supplementary Information provided in support of the application for variation	Dated 30/10/2003 (includes information on specification of waste products that can be accepted).	08/11/2003
Supplementary Information provided in support of the application for variation	Dated 07/11/2003.	10/11/2003
Application for variation MP3839MA	Dated 09/09/2006.	15/08/2006
Supplementary Information provided in support of the application for variation	Dated 21/09/2006.	25/09/2006
Application for variation EPR/BK9423IS/V005	The operating techniques described in the application.	13/12/2010
Application for variation EPR/BK9423IS/V006	Response to section 3a, table 3, technical standards, Part C3 of the application form. Application document referenced CSL8 in response to Appendix 5 – Specific questions for the hazardous and non-hazardous waste recovery and disposal sector, Part C3 of the application form.	16/10/2012
Application for variation EPR/BK9423IS/V009	Response to section 3a, table 3, technical standards, Part C3 of the application form.	01/07/2016
Schedule 5 Notice dated 26/07/2016	Responses to questions 1-4.	04/08/2016 and 09/08/2016

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Response to Regulation 60 Notice – request for further information dated 16/12/2016	Technical standards detailed in response to BAT Conclusions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 18, 19, 90, 92, 93, 94, 96, 98 and 107 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.	15/03/2017
Response to Regulation 61 Notice – request for further information dated 18/10/2017	Further information and/or clarification on BAT Conclusions 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 18, 19, 90, 92, 93, 94, 96, 98 and 107 of the request.	15/11/2017
Response to request for further information dated 22/11/2017	Further information and/or clarification on BAT Conclusions 6, 7, 19 and 90 of the request.	06/12/2017
Response to request for further information dated 05/01/2018	Further information and/or clarification on BAT Conclusions 5 (storage of bag filter dust) and 98 (pyrolysis furnace). Further information and clarification on drainage arrangements at the installation.	09/01/2018 16/01/2018

Table S1.3 Improvement programme requirements		
Reference	**Improvement Condition**	**Completion date**
IC02	The operator shall submit a written report to the Environment Agency for approval. The report must contain the results of a monitoring exercise, using the methods specified in the permit, that measures the emissions of particulate matter and oxides of nitrogen (NO_x) from the pyrolysis furnace to the A1 stack over a complete a normal operational cycle, along with a comparison of emissions against the prediction used in the air emissions assessment submitted as part of the application. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan.	Within 3 months of commissioning of the pyrolysis furnace.
IC03	The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT 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: 1) Methodology for achieving BAT 2) Associated targets / timelines for reaching compliance by 30 June 2020 3) Any alterations to the initial plan. The report shall address the following BATc: 4, 5	Unless otherwise agreed by the Environment Agency progress reports to be submitted every 6 months from the date of issue of notice V010. Compliance by 30 June 2020.

Table S1.3 Improvement programme requirements		
Reference	**Improvement Condition**	**Completion date**
	BATc 4: incorporation of a maintenance management system that addresses dust abatement systems into the Environmental Management System. **BATc 5:** prevention of diffuse emissions via appropriate storage of dust/waste lime from bag filter plant. Refer to BAT Conclusions for a full description of the BAT requirements.	
IC04	The operator shall undertake a review of periodic monitoring for emissions to air of TVOC from emission points A1 and A8. 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. 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 inter alia 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. 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.	Within 12 months of effective date of notice V010.
IC05	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 surface water **and/or sewer** from the installation. The risk assessment shall include, but not be limited to the following: a) 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 b) 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.	Within 12 months of effective date of notice V010.

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for waste lead processing	
Maximum quantity	**350 tonnes per annum; only waste products that meet the specification in Table S1.2 above shall be accepted.**
Waste code	**Description**
12	**Wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 03	non-ferrous metal filings and turnings
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 04	**metals (including their alloys)**
17 04 03	lead

Schedule 3 – Emissions and monitoring

Table S3.1a Point source emissions to air – emission limits and monitoring requirements **Effective until 29/06/2020**						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 [Point A1 at NGR 338419, 366755 on site plan CFDL105]	Fabric filter abatement plant and pyrolysis furnace afterburner	Particulate matter	5 mg/m^3	Monthly mean	Continuous	Principles of BS EN 14181 Note 1
		Particulate matter	10 mg/m^3	Daily mean	Continuous	Principles of BS EN 14181 Note 1
		Lead, copper, nickel, zinc (as mass sum of the individual compounds expressed as metal)	2 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID
		Arsenic, cadmium, mercury, thallium, selenium (as mass sum of the individual compounds expressed as metal(loid))	0.5 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID
		Antimony, tin and tellurium (as mass sum of the individual compounds expressed as metal(loid))	0.5 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID
		Dioxins ITEQ	0.1 ng/m^3	Mean over period. Minimum 6 hours, maximum 8 hours	Annually Minimum interval between monitoring 10 months	BS EN 1948: Parts 1, 2 & 3 and MID
A2 [Point A2 at NGR 338412, 366760 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-
A3 [Point A3 at NGR 338350, 366317 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-

Table S3.1a Point source emissions to air – emission limits and monitoring requirements Effective until 29/06/2020						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A4 [Point A4 at NGR 338391, 366628 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-
A5 [Point A5 at NGR 338382, 366635 on site plan CFDL105]	Shrink wrap tunnel flue	No parameters set	No limit set	-	-	-
A6 [Point A6 at NGR 338344, 366648.5 on site plan CFDL105]	Lead slab heating oven	No parameters set	No limit set	-	-	-
A7 [Point A7 at NGR 338364.5, 366666.6 on site plan CFDL105]	Oil mist extraction flue	No parameters set	No limit set	-	-	-
A8 [Point A8 at NGR 338387, 366623 on site plan CFDL105]	Fabric filter abatement plant	Particulate matter	5 mg/m^3	Monthly mean	Continuous	Principles of BS EN 14181 Note 1
		Particulate matter	10 mg/m^3	Daily mean	Continuous	Principles of BS EN 14181 Note 1
		Lead, copper, nickel, zinc (as mass sum of the individual compounds expressed as metal)	2 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID
		Arsenic, cadmium, mercury, thallium, selenium (as mass sum of the individual compounds expressed as metal(loid))	0.5 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID
		Antimony, tin and tellurium (as mass sum of the individual compounds	0.5 mg/m^3	Mean over period. Minimum 30 minutes, maximum 8 hours	Bi-annual Minimum interval between monitoring 4 months	BS EN 14385 and MID

Table S3.1a Point source emissions to air – emission limits and monitoring requirements Effective until 29/06/2020						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
		expressed as metal(loid))				
		Dioxins ITEQ	0.1 ng/m^3	Mean over period. Minimum 6 hours, maximum 8 hours	Annually Minimum interval between monitoring 10 months	BS EN 1948: Parts 1, 2 & 3 and MID

Note 1: Continuous Emission Monitoring systems shall be quality assured using the following general principles in BS EN 14181: functionality testing with full linearity, and verification with parallel tests using a standard reference method.

Table S3.1b Point source emissions to air – emission limits and monitoring requirements. Effective from 30 June 2020						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period** Note 2	**Monitoring frequency** Note 2	**Monitoring standard or method** Note 2
A1 [Point A1 at NGR 338419, 366755 on site plan CFDL105]	Fabric filter abatement plant Torit DCE DFT4-96 and pyrolysis furnace afterburner	Particulate matter	4 mg/Nm^3	Daily Average	Continuous	Principles of BS EN 14181 Note 1
		Lead	1 mg/Nm^3	Average over the sampling period	Once per year	BS EN 14385 and MID
		TVOC as C	40 mg/Nm^3	Average over the sampling period	Once per year	BS EN 12619
		Dioxins and Furans ITEQ PCDD/F	0.1 ng I-TEQ/Nm^3	Average over a sampling period of at least six hours	Once per year	BS EN 1948: Parts 1, 2 & 3 and MID
		Antimony and its compounds, expressed as Sb	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
		Arsenic and its compounds, expressed as As	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
		Cadmium and its compounds,	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID

Table S3.1b Point source emissions to air – emission limits and monitoring requirements. Effective from 30 June 2020						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period** Note 2	**Monitoring frequency** Note 2	**Monitoring standard or method** Note 2
		expressed as Cd				
		Copper and its compounds, expressed as Cu	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
A2 [Point A2 at NGR 338412, 366760 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-
A3 [Point A3 at NGR 338350, 366317 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-
A4 [Point A4 at NGR 338391, 366628 on site plan CFDL105]	Combustion gases flue	No parameters set	No limit set	-	-	-
A5 [Point A5 at NGR 338382, 366635 on site plan CFDL105]	Shrink wrap tunnel flue	No parameters set	No limit set	-	-	-
A6 [Point A6 at NGR 338344, 366648.5 on site plan CFDL105]	Lead slab heating oven	No parameters set	No limit set	-	-	-
A7 [Point A7 at NGR 338364.5, 366666.6 on site plan CFDL105]	Oil mist extraction flue	No parameters set	No limit set	-	-	-
A8 [Point A8 at NGR 338387, 366623 on site plan CFDL105]	Fabric filter abatement plant Torit DCE DFT3-24	Particulate matter	4 mg/Nm^3	Daily Average	Continuous	Principles of BS EN 14181 Note 1
		Lead	1 mg/Nm^3	Average over the sampling period	Once per year	BS EN 14385 and MID
		TVOC as C	40 mg/Nm^3	Average over the sampling period	Once per year	BS EN 12619
		Dioxins and Furans ITEQ PCDD/F	0.1 ng I-TEQ/Nm^3	Average over a sampling period of at least six hours	Once per year	BS EN 1948: Parts 1, 2 & 3 and MID

Table S3.1b Point source emissions to air – emission limits and monitoring requirements. Effective from 30 June 2020						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period** Note 2	**Monitoring frequency** Note 2	**Monitoring standard or method** Note 2
		Antimony and its compounds, expressed as Sb	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
		Arsenic and its compounds, expressed as As	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
		Cadmium and its compounds, expressed as Cd	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID
		Copper and its compounds, expressed as Cu	No limit set	Average over the sampling period	Once per year	BS EN 14385 and MID

Note 1: Continuous Emission Monitoring systems shall be quality assured using the following general principles in BS EN 14181: functionality testing with full linearity, and verification with parallel tests using a standard reference method.

Note 2: Monitoring to be undertaken in accordance with stated requirements in Table S3.1b pending completion of Improvement Condition IC04 in Table S1.3.

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**
S1 (MH11on site plan drawing CFDL105) emission to surface water drain leading to River Dee.	Surface water drainage from site including deliveries/storage yard via interceptor (including cooling tower bleed Calder I)	Oil/Grease	None visible	-	Monthly	Visual
S2 (SWMH 05 on site plan drawing CFDL105) emission to surface water drain leading to River Dee.	Surface water drainage from site including deliveries/storage yard via interceptor (including cooling tower bleed Calder II)	Oil/Grease	None visible	-	Monthly	Visual

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 Parameters as required by condition 3.5.1.	As specified in: Table S3.1a (effective until 29/06/2020), or Table S3.1b (effective from 30/06/2020).	As required by: Table S3.1a (effective until 29/06/2020), or Table S3.1b (effective from 30/06/2020).	01 January

Table S4.2: Annual production/treatment	
Parameter	**Units**
-	-

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
CO_2 produced	Annually	CO_2/te product
Water usage	Annually	m^3/te product
Energy usage	Annually	MWh
Total raw material used	Annually	tonnes
Waste accepted	Annually	tonnes
Waste disposed	Annually	te/te product
Waste recovered	Annually	te/te product

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	07/10/2016
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	27/02/2018
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	27/02/2018
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	07/10/2016
Waste subject to condition 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	

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

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

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
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.	

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.

“daily average” means the average over a period of 24 hours of valid half-hourly or hourly averages obtained by continuous measurements, as defined in the *General Considerations* section of the Non-Ferrous Metals BAT Conclusions. A half-hourly or hourly average shall be considered valid if measurements are available for a minimum of (a) 20 minutes during the half hour, or (b) 40 minutes during the hour. The number of half-hourly or hourly averages so validated shall not exceed 5 per day.

“emissions to land” includes emissions to groundwater.

“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.

“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.

“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 lll 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.

“recovery” 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 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.

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.

“year” means calendar year ending 31 December.

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 Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,7,8,9 Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,6,7,8 Hexachlordibenzofuran (HxCDF)	0.1
2,3,4,6,7,8 Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8 Heptachlordibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9 Heptachlordibenzofuran (HpCDF)	0.01
Octachlordibenzofuran (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.

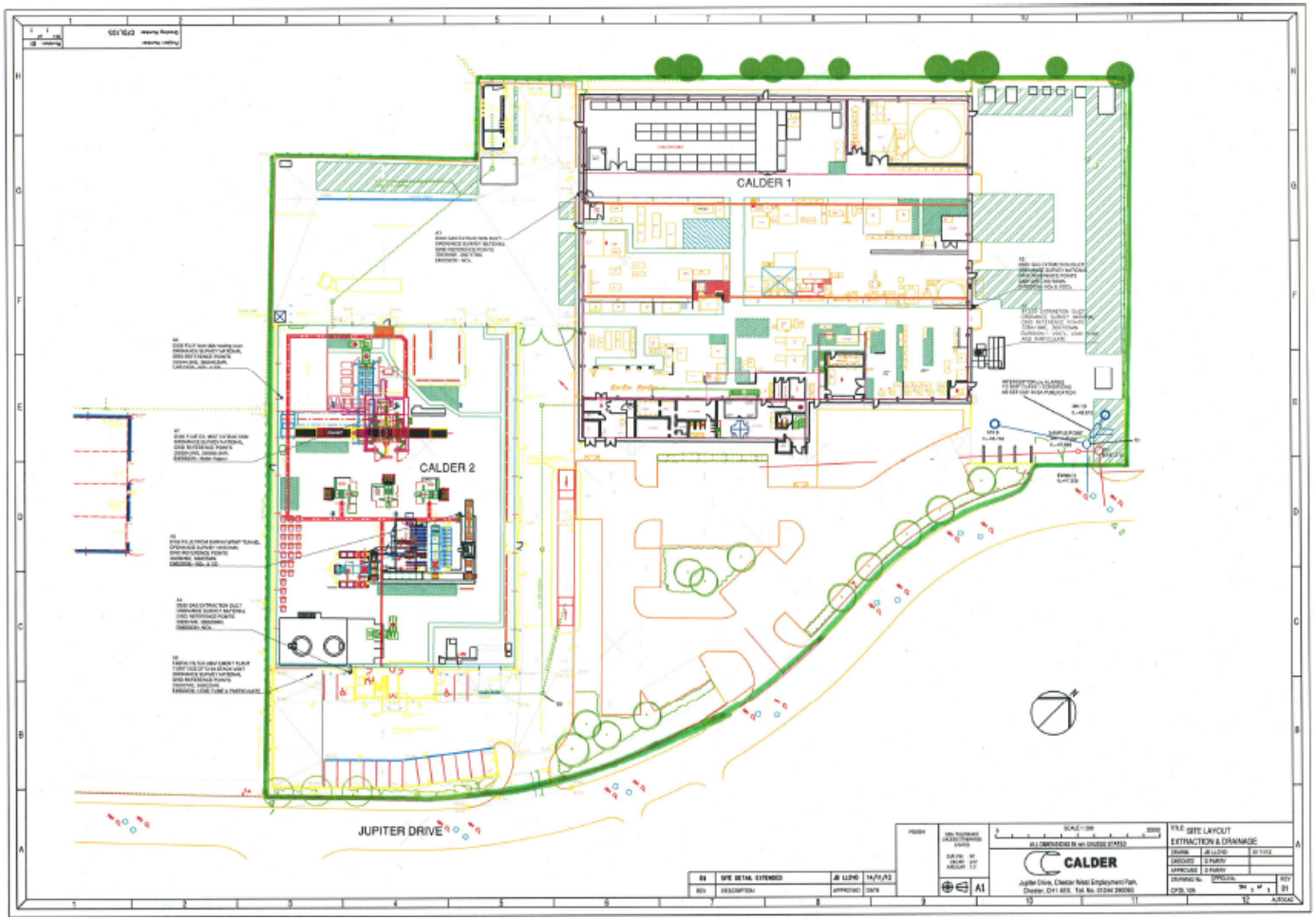
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified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



END OF PERMIT