

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Irons Brothers, Limited

The Foundry
St Breock
Wadebridge
Cornwall
PL27 7JP

Variation application number

EPR/BT0111IP/V003

Permit number

EPR/BT0111IP

The Foundry

Permit number EPR/BT0111IP

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, 18 and 19. The operator is already compliant with the BATc with the exception of 1, 3, 4 and 6. We have set an improvement condition in the varied permit to track progress against future compliance.

Articles 16 and 22 of the Industrial Emissions Directive require that a quantified baseline is established for the level of contamination of soil and groundwater with hazardous substances, in order that a comparison can be made on final cessation of activities at the installation. This variation therefore includes an improvement condition that requires the operator to submit information to establish whether or not there is a risk of contamination of soil and groundwater and where necessary to prepare a baseline report.

Brief description of the process

The Foundry (the Installation) is operated by Irons Brothers, Limited and is located in St Breock, Wadebridge, Cornwall, England.

This site is located approximately 2 kilometres from the centre of Wadebridge. There are four local wildlife sites and one ancient woodland within 2 kilometres of the site.

The installation falls into the Secondary Lead sub-sector, within the Non-Ferrous Metals Sector. The installation consists of two main activities: lead melting / casting; and iron melting / casting; both for the production of boat keels and other products. Lead melting and casting is not a continuous process and is undertaken intermittently throughout the year based on customer demand and orders.

Lead ingots, or internally recycled lead, are melted using an indirect oil-fired crucible furnace where temperature is carefully controlled to ensure that the emission of lead to air is minimal. The process melts around 600 tonnes of lead per year. The main emissions from the stack (via emission point A1) are the products of combustion of oil (oxides of nitrogen and sulphur dioxide). There are no emissions to water.

This 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).

Iron is melted in a vertical refractory-lined steel cupola. The cupola is closed at the base to form a well in which the molten metal collects ready to be tapped off for casting. Air enters through the base through pipes (known as tuyeres) to enable combustion of the coke used as fuel for the melting. Scrap iron, coke and limestone are added through the charging door. As the iron melts, it collects in the well and is tapped off at intervals. Further charges of iron, coke and lime may be added periodically. Limestone is used as a flux, reacting with the ash, sand, etc. to form a slag which floats on top of the molten iron. A typical cast produces 20-25 tonnes of molten iron and is carried out about 10 times per year. The cupola stack (emission point A2) is fitted with a wet scrubber which is primarily for spark arrestment. However, some reduction in particulates and acid gases will result from the operation of the spark arrestor. This activity is listed under Schedule 1 Section 2.1 (B)(b)(ii) –

Unless falling within Part A(2)(a) or (d) of this Section, producing, melting or refining iron or steel or any ferrous alloy (other than producing pig iron or steel, including continuous casting) using—

- (ii) cupola, crucible, reverberatory, rotary, induction, electro-slag or resistance furnace.

Both lead and iron keels are cast in moulds formed from sand. Sand, which has been treated with curing agents is packed around a wooden pattern forming a mould. The castings are removed from the moulds by hand breaking and passed to the fettling section for finishing. These operations are carried out within a building in order to minimise any potential releases of particulate matter to the environment.

Lead castings are finished by hand using grinding and sanding tools, whilst iron castings are firstly shot blasted to remove sand and then hand finished as for lead. These operations are carried out in bays with dedicated air extraction systems. Extracted air is filtered before being returned into the bay so there is no direct discharge to air. Products may be spray-painted before dispatch and this is carried out in booths. Air is extracted to emission point A3 via a filtration system to reduce emissions of volatile organic compounds.

90% of the sand used is recycled in the sand reclamation plant which mechanically breaks up the sand. Fine particles are extracted and filtered before the air is returned into the building. Reclaimed sand is stored in a silo. New sand is delivered into a dedicated silo which is fitted with a high level alarm to ensure that it is not overfilled. Displaced air is passed through a filter sock prior to discharge.

Surface water drains either to land via soakaway or directly into the local stream, via interceptors.

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 received EPR/BT0111IP/A001	Duly made 05/08/2002	Application for non-ferrous metals processing facility.
EPR/BT0111IP (PAS Billing Ref: BT0111IP)	01/10/2004	Permits issued to Irons Brothers, Limited.
Variation Application EPR/ BT0111IP/V002	Duly Made 28/04/2005	Application to update the dates in the improvement condition table.

Status log of the permit		
Description	Date	Comments
variation and consolidation		
Variation determined EPR/BT0111IP (PAS Billing Ref: GP3936SN)	06/10/2005	Varied and consolidated permit issued to Irons Brothers, Limited.
Regulation 60 Notice dated 16/12/2016 (Notice requiring information for statutory review of permit)	Response Received 02/04/2017	Technical standards detailed in response to the information notice. Information to demonstrate that relevant BAT Conclusions are met for the non-ferrous metals industries as detailed in document reference L174.
Regulation 61 Notice dated 17/10/2017 (Notice requiring information for statutory review of permit)	Response Received 26/11/2017	Further information / clarification with regard to BAT conclusions 2-5, 9-10, 93-107.
EPR/BT0111IP/V003 (variation and consolidation) Variation determined EPR/BT0111IP (PAS / Billing Ref: UP3835JE)	30/01/2018	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/BT0111IP

Issued to

Irons Brothers, Limited (“the operator”)

whose registered office is

**The Foundry
Wadebridge
Cornwall
PL27 7JP**

company registration number 00248168

to operate an installation at

**The Foundry
St Breock
Wadebridge
Cornwall
PL27 7JP**

to the extent set out in the schedules.

The notice shall take effect from 30/01/2018

Name	Date
Tom Swift	30/01/2018

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/BT0111IP

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BT0111IP/V003 authorising,

Irons Brothers, Limited (“the operator”),

whose registered office is

**The Foundry
Wadebridge
Cornwall
PL27 7JP**

company registration number 00248168

to operate an installation at

**The Foundry
St Breock
Wadebridge
Cornwall
PL27 7JP**

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

Name	Date
Tom Swift	30/01/2018

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

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

1.3 Efficient use of raw materials

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 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 S3.1 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 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 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 S3.1 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 For the following activities referenced in schedule 1, table S1.1, 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.

4.4 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
Section 2.2 A(1)(b):	<p>Melting, including making alloys of, non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where -</p> <ul style="list-style-type: none"> 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. <p>[Melting and casting lead using oil fired pot.]</p>	Charging of melting pot to transfer of lead product to fettling activities. Includes casting of molten lead using sand moulds.
Section 2.1 B(b)(ii)	<p>Unless falling within Part A(2)(a) or (d) of this Section, producing, melting or refining iron or steel or any ferrous alloy (other than producing pig iron or steel, including continuous casting) using –</p> <ul style="list-style-type: none"> (i) one or more electric arc furnaces, none of which has a designed holding capacity of 7 or more tonnes, or (ii) a cupola, crucible, reverberatory, rotary, induction, vacuum, electro-slag or resistance furnace. <p>[Melting and casting iron using a cupola furnace.]</p>	<p>Charging of cupola furnace to transfer of iron product to fettling activities. Includes casting of molten iron using sand moulds.</p> <p>Waste types as specified in Table S2.2.</p>
Directly Associated Activity		
Raw materials storage and handling	Receipt, handling and storage of iron scrap and all process substances.	Receipt of raw materials until used in the process.
Fettling activities	Cleaning of cast semi-finished products using processes such as shot blasting, grinding and	From storage, handling and finishing of cast semi-finished products to transfer to spray painting or transfer to packaging and storage.

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
	sanding.	
Spray painting	Spray painting of cleaned semi-finished products. Includes filtration of extracted air and discharge via stack.	From storage and handling of cleaned semi-finished products to transfer to packaging and storage and emission of extracted air from spray booth.
Sand reclamation	Breaking up of sand moulds by mechanical means. Filtering to remove fine particles. Storage of reclaimed sand.	From receipt of used sand to use in moulding area.
Surface water discharge to ground or controlled water	Discharge of site drainage from the installation.	From interceptors to controlled water or from site surfacing to soakaway.
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 EPR/BT0111IP/A001	The response to questions 2.1 and 2.2 given in section B2.1 and B2.2 of the resubmitted application.	August 2004
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, 18 and 19 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.	02/04/2017
Response to Regulation 61 Notice – request for further information dated 17/10/2017	Technical standards detailed in response to items 2, 4 and 5 of the request.	26/11/2017
Receipt of additional information requested by email dated 04/12/2017.	Confirmation that there are no alloying processes undertaken at the installation. Confirmation of waste types accepted at the site.	04/12/2017
	Revised emissions point plan.	06/12/2017
Receipt of additional information requested by email dated 04/12/2017.	Confirmation of solvent consumption in the spray painting booth.	29/01/2018

Table S1.3 Improvement programme requirements		
Reference	Improvement Condition	Completion date
IC04 ^{Note 1}	A procedure shall be written and implemented for recording and investigating incidents.	01/01/2005
IC05 ^{Note 1}	A site accident management plan shall be written and implemented.	01/04/2005
IC11	<p>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:</p> <ol style="list-style-type: none"> 1. Methodology for achieving BAT. 2. Associated targets / timelines for reaching compliance by 30 June 2020 3. Any alterations to the initial plan. <p>The report shall address the following BAT Conclusions:</p> <p>BAT 1 (implement and adhere to an Environmental Management System (EMS) that incorporates all the listed features).</p> <p>BAT 3 (implementation of a process control system to ensure stable process operation).</p> <p>BAT 4 (application of a maintenance management system which addresses the performance of dust abatement systems as part of the EMS).</p> <p>BAT 6 (set up and implement a diffuse dust emissions action plan as part of the EMS).</p> <p>Refer to BAT Conclusions for a full description of the BAT requirements.</p>	<p>Unless otherwise agreed by the Environment Agency progress reports to be submitted every 6 months from the date of issue of notice V003.</p> <p>Compliance by 30 June 2020.</p>
IC12	The operator shall submit to the Environment Agency for approval a risk assessment considering the possibility of soil and groundwater contamination at the installation where the activity involves the use, production or release of a relevant hazardous substance (as defined in Article 3(18) of the Industrial Emissions Directive). The risk assessment shall clearly establish with appropriate evidence whether or not there is a risk of contamination of soil and groundwater.	Within 3 months of effective date of notice V003.
IC13	<p>Where the risk assessment carried out under IC 12 above establishes a risk to soil and groundwater the operator shall:</p> <ol style="list-style-type: none"> a) prepare and submit a baseline report compliant with Article 22 of the Industrial Emissions Directive (IED) containing information necessary to determine the current state of soil and groundwater contamination; or b) provide a summary report referring to information previously submitted where the operator is satisfied that such information represents the current state of soil and groundwater contamination, <p>so as to enable a quantified comparison to be made with the state of soil and groundwater contamination upon definitive cessation of activity.</p>	Within 12 months of effective date of notice V003.

Table S1.3 Improvement programme requirements		
Reference	Improvement Condition	Completion date
IC14	<p>The operator shall submit to the Environment Agency for approval a written report on emissions of lead in air from the lead melting pot. The report shall include (but not be limited to) the following:</p> <ul style="list-style-type: none"> a) results of an investigation by the operator to determine the cause of recent elevated levels of lead in air at emission point A1; b) details of an Action Plan (including timescales) to address the issues identified in (a) such that emissions of lead in air at emission point A1 are eliminated, or minimised to the point of being considered negligible. <p>The Action Plan shall include proposals for undertaking additional monitoring to demonstrate that the remedial action taken has been successful, and as a minimum shall comprise monitoring during six consecutive lead melting operations (or as otherwise agreed by the Environment Agency).</p>	Within 3 months of date of issue of variation notice V003.
IC15	<p>The operator shall implement the Action Plan specified in IC14 above upon receipt of written approval by the Environment Agency.</p> <p>The operator shall submit to the Environment Agency for approval a report containing the following:</p> <ul style="list-style-type: none"> a) the monitoring results obtained under IC14; b) analysis of the results; c) conclusions from the study; and d) details of any further remedial actions necessary. 	Within 9 months of approval of IC14 from the Environment Agency.

Note 1: this improvement condition has been retained from variation notice EPR/BT0111IP/V002

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 iron melting	
Waste code	Description
19	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
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 02	ferrous metal

Schedule 3 – Emissions and monitoring

Table S3.1a Point source emissions to air – emission limits and monitoring requirements						
Effective until 29 June 2020						
Emission point ref. & location	Source	Parameter	Limit (including unit)^{Note 2}	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Oil burners serving the lead melting pot	Oxides of nitrogen	300 mg/m ³	Hourly average	Annually	BS EN 14792
		Lead	0.5 mg/m ³	Hourly average	Annually	BS EN 14385
		Sulphur dioxide	No limit set	Hourly average	Annually	BS EN 14791
A2 [Point A2 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Cast iron cupola stack	Total Particulate Matter <small>Note 3</small>	Visible emissions <small>Note 3</small>	- <small>Note 3</small>	Daily <small>Note 3</small>	BS EN 2742
A3 [Point A3 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Spray painting booth	TVOC as C	No limit set	-	-	-

Note 2: See schedule 6 for reference conditions.

Note 3: In accordance with Local Authority Process Guidance Note PG 2/05 (13), Statutory Guidance for Cold Blast Cupolas.

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)^{Note 2}	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Oil burners serving the lead melting pot	Oxides of nitrogen	300 mg/m ³	Hourly average	Annually	BS EN 14792
		Sulphur dioxide	No limit set	Hourly average	Annually	BS EN 14791
A2 [Point A2 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Cast iron cupola stack	Total Particulate Matter <small>Note 3</small>	Visible emissions <small>Note 3</small>	- <small>Note 3</small>	Daily <small>Note 3</small>	BS EN 2742
A3 [Point A3 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017]	Spray painting booth	TVOC as C	No limit set	-	-	-

Note 2: See schedule 6 for reference conditions.

Note 3: In accordance with Local Authority Process Guidance Note PG 2/05 (13), Statutory Guidance for Cold Blast Cupolas.

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
W1 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017 emission to tributary of River Camel.	Uncontaminated surface water	No parameters set	No limits set	-	-	-
W2 on Environmental Site Plan, Issue 4, ref IB/SD/1.00, dated 05/12/2017 emission to soakaway.	Uncontaminated surface water	No parameters set	No limits set	-	-	-

Schedule 4 – Reporting

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

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.	A1, A2	Every 12 months	01 January

Table S4.2: Annual production/treatment	
Parameter	Units
Total weight of iron castings produced	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1a or other form as agreed in writing by the Environment Agency	DD/MM/YY
	Form air 1b or other form as agreed in writing by the Environment Agency	DD/MM/YY
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	DD/MM/YY
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	DD/MM/YY

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.

“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.

“disposal” 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 or background concentration limit.

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

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

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

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

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

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

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

“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.

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

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

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

“PCBs” means

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

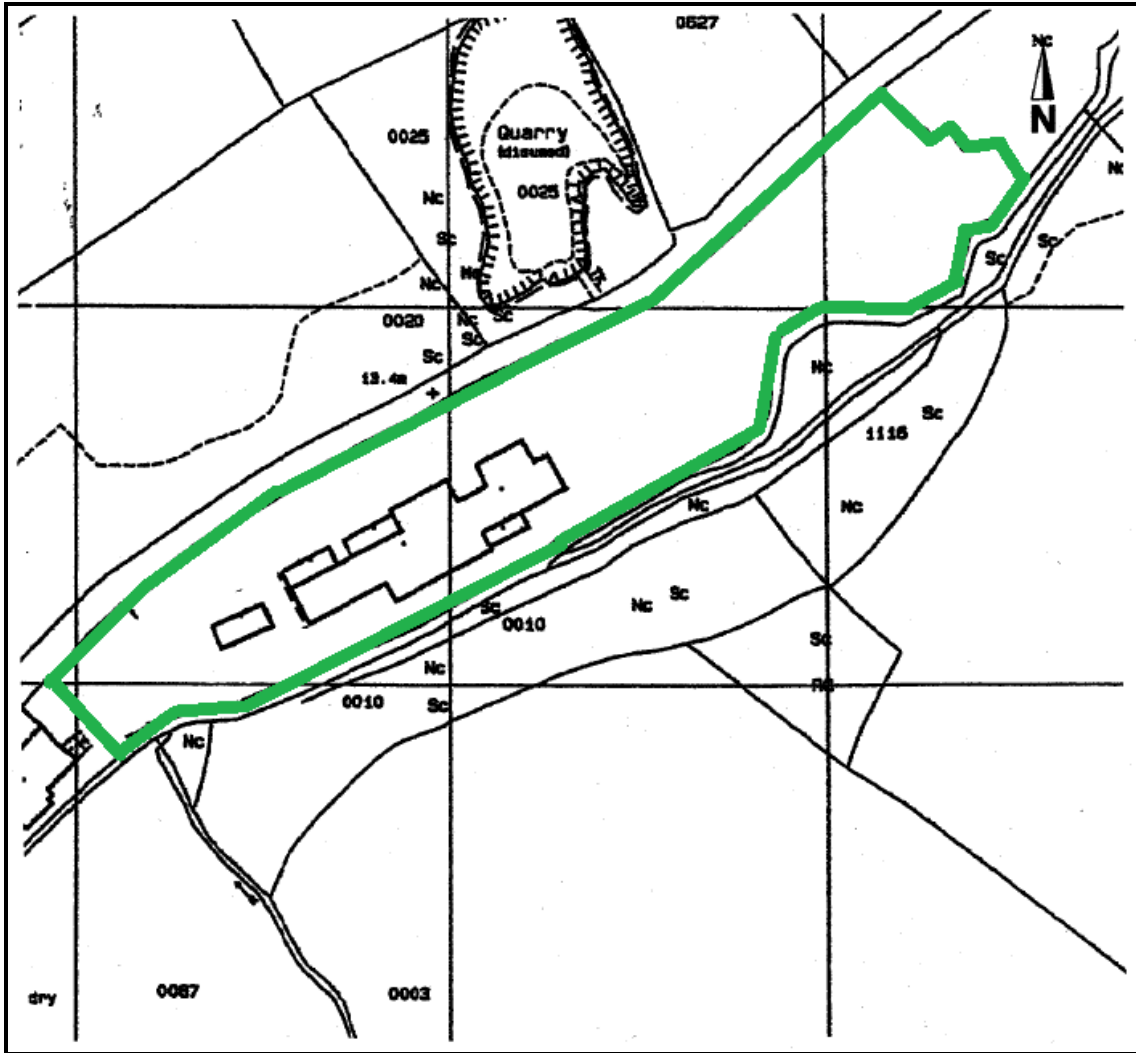
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified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

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

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

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

Schedule 7 – Site plan



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