

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

AMG Aluminum UK Limited

AMG Aluminum UK Limited

Fullerton Road

Rotherham

S60 1DL

Variation application number

EPR/GP3639ZY/V002

Permit number

EPR/GP3639ZY

AMG Aluminum UK Limited

Permit number EPR/GP3639ZY

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 7th 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 30th 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 13th June 2016. The BATc for this installation which apply from 30th June 2020 are 1-5, 7-9, 10, 14, 18, 19, 75, 78, 81, 82, 84 and 85. The operator is already compliant with the BATc with the exception of BATc 10, BAT 81 and BAT 82. We have set improvement conditions 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).

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

AMG Aluminium UK Limited (the Installation) is operated by AMG Aluminum UK Limited and is located in Rotherham, England.

The main activities undertaken by this site are the manufacture of aluminium grain refiners, and binary alloys. The site operations are listed under Table 1.1 Activities of this permit as a Section 2.2 A(1)(b) activity. These products are supplied to customers who add them to their production process to alter the physical properties of their aluminium alloy. The addition of binary alloys and grain refiners allows for the production of a wide range of aluminium alloy based products such as beverage cans and automotive transmission cables.

Aluminium grain refiners

Commercially pure aluminium in solid form is delivered by road to AMG Aluminium UK Limited. This pure aluminium is melted in one of two gas-fired melting furnaces. These furnaces are referred to as the 10 tonne Mono and the Mecatherm. After melting the molten metal is poured into one of a number of electric induction furnaces each with a capacity of less than 5 tonnes.

Potassium fluoride based salts containing titanium and boron are added to the induction furnaces plus the addition of small quantities of solid aluminium. Potassium aluminium fluoride (PAF) is formed as a by-product of the reaction. The PAF is poured off from the furnace into a pan and is collected for further processing.

The molten alloy is then transferred by ladle to the electric induction furnaces that serve the continuous casting plants. Alternatively when there is no capacity at the continuous caster the molten alloy is cast into waffle on a single strand casting machine prior to packing and dispatch.

The grain refiner can be produced without the use of potassium fluoride salts by instead adding solid titanium and carbon directly to the molten aluminium with in an electric induction furnace. The molten alloy can then be cast and coiled in the same manner as the other grain refiners.

Binary alloys (salt and non-salt based)

The salt-based process involves the drying and melting of commercially pure aluminium with the addition of potassium fluoride salts (containing boron, titanium and zirconium) to produce binary alloys. The alloy is then cast into solid shapes and may then be shot blast cleaned prior to being packaged and dispatched. As with the production of grain refiners the addition of the potassium fluoride means during the reaction PAF is produced as a by-product.

Alternatively binary alloy can be produced by drying and melting of commercial grade aluminium with the addition of other metals (solid pieces, granules, flakes powders or turnings) to produce binary alloys. Once the alloys are produced they can then be cast into solid shapes which may then be sheared into smaller pieces as required by the customer.

Potassium aluminium fluoride (PAF)

PAF is the by-product of the reaction between aluminium and potassium fluoride salts in the production of grain refiners and binary alloys. The PAF is decanted into a pan and then transferred to the PAF caster which converts the molten PAF into solid flake. Alternatively, depending on customer requirements, the molten PAF can transferred to an alternative pan and left to cool which will produce lump as opposed to flake.

The PAF is then sold to customers within the aluminium and steel industries who use PAF as a flux within their own processes to separate the metal from the oxides and drosses.

Fume Abatement

Fume is extracted either from the furnace lip or captured in a fume hood situated above the furnaces. Fume-laden gases are ducted to bag filter plants from which the filtered gases are then released to atmosphere via dedicated stacks.

The filter cloth in the bag-filter plant serving the furnaces used for reacting fluoride salts is continually coated with lime powder in order to neutralise the hydrogen fluoride and other acidic gas emissions. The lime powder is delivered by tanker to the site storage silo where it is conveyed to the bag plant.

The 10 tonne mono and the mecatherm furnaces share a common stack. The salt weighing plant and the shotblasters are fitted with local exhaust ventilation which are ducted to dedicated bag filter plants to capture releases of particulate matter.

Process releases to sewer arise from the overflow from the furnace cooling water system. Process water from the caster is a closed water cooling system. The used water (caster process water and cooling water from the rolling mill) goes through a filter system and is reused or if no longer recyclable it is disposed of in the oil/ water collection tank and collected by waste contractor.

The site operates an Environmental Management System compliant with ISO 14001.

It's worth noting that there is a number of additional activities which occur on the wider installation that are not covered by this permit. These activities are covered by EPR permits issued to AMG Super Alloys UK Limited.

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/BQ3916IQ/A001	Duly made 18/01/02	Application for non-ferrous metals processing facility.
Permit determined EPR/BQ3916IQ	10/09/02	Original permit issued to London & Scandinavian Metallurgical Co Limited.
Transfer Application EPR/GP3639ZY/T001	Duly made 03/12/12	Application to transfer the permit in full from London and Scandinavian Metallurgical Co Limited to AMG Aluminum UK Limited.
Transfer determined EPR/GP36369Z	24/07/13	Full transfer issued to AMG Aluminum UK Limited.
Regulation 60 Notice dated 16/12/16 (Notice requiring information for statutory review of permit)	Response Received 28/03/17	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 23/01/18 (Notice requiring information for statutory review of permit)	Response Received 15/02/18	Further information / clarification with regard to BAT conclusions 1-19, 74-85, 150-162.
Environment Agency initiated variation EPR/GP3639ZY (variation and consolidation)	05/06/18	Statutory review of permit – Non-ferrous metals BAT Conclusions published 30/06/16.
Variation determined EPR/GP3639ZY (PAS / Billing Ref: SP3032JE)		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/GP3639ZY

Issued to

AMG Aluminum UK Limited (“the operator”)

whose registered office is

**C/O AMG
Fullerton Road
Rotherham
S60 1DL**

company registration number 08269137

to operate an installation at

**AMG Aluminum UK Limited
Fullerton Road
Rotherham
S60 1DL**

to the extent set out in the schedules.

The notice shall take effect from 05/06/2018

Name	Date
Tom Swift	05/06/2018

Authorised on behalf of the Environment Agency

Schedule 1

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

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/GP3639ZY

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/GP3639ZY/V002 authorising,

AMG Aluminum UK Limited ("the operator"),

whose registered office is

**C/O AMG
Fullerton Road
Rotherham
S60 1DL**

company registration number 08269137

to operate an installation at

**AMG Aluminum UK Limited
Fullerton Road
Rotherham
S60 1DL**

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

Name	Date
Tom Swift	05/06/2018

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

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

1.3 Efficient use of raw materials

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

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

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

2 Operations

2.1 Permitted activities

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

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red 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 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

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

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

2.4 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.

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.

4.3 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. 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.

4.3.2 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.

4.3.3 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.

4.3.4 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> <p>(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</p> <p>(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>	From receipt of furnace charge to transfer to finishing activities, or to packaging and storage. Includes continuous casting of aluminium alloy.
Directly Associated Activity		
Raw materials storage and handling	Receipt, handling and storage of aluminium and other alloy and all process substances.	Receipt of raw materials until used in the process.
Finishing Activities	Rolling, rod coiling, and shot blasting of aluminium alloy products.	Receipt of cast aluminium alloy at the finishing activity to the dispatch from site.
Drying of aluminium raw materials prior to melting	Drying of aluminium raw materials.	Receipt of aluminium ingot to transfer to melting activity.
Potassium aluminium fluoride processing	Decanting, cooling and casting of potassium aluminium fluoride.	From the removal of potassium aluminium fluoride from the furnace, to the transfer to packaging and storage.
Effluent discharge to foul sewer	Discharge of cooling water from the installation.	From production of effluent to discharge to drainage system of a neighbouring installation.
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.
Off-gas collection and abatement	Collection via ducting to abatement plant and discharge via stacks.	From localised extraction to stack exit.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to question 2.1-2.11 given in section AA/IPPC/B2.3 of the application.	18/01/02
Response to Regulation 60 Notice – request for further information dated 06/12/16	Technical standards detailed in response to BAT Conclusions 1-5, 7-10, 14, 18, 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.	28/03/17
Response to Regulation 61 Notice – request for further information dated 23/01/18	Further information and/or clarification on BAT conclusions 1-3, 5, 7-9, 14, 18, 19, 75, 78, 81, 82, 84 and 85.	15/02/17
Response to email dated 05/03/18 – request for further information	Additional information in regards to emissions, emission points (BAT 81, 83 and 84) and potassium aluminium fluoride processing. Amended site plans demonstrating the location of the site footprint (Drawing Number: 2690392) and emission points to air (Drawing Number: 9003340).	23/03/18 26/03/18
Responses to email dated 10/04/18 – request for further information	Additional information in regards to: the reduction in the generation of waste water (BAT 14), emissions of odour (BAT 19), energy efficiency (BAT 75), diffuse emissions (BAT 78), emissions, and emissions monitoring for dust (BAT 81) and HF, HCl and Cl ₂ (BAT 84). Amended site plans demonstrating the location of the emission points to sewer and surface water. (EMD Drawing Number: 9001091, and Warehouse Drawing Number: 2660017)	Received 18/04/18 03/05/18

Table S1.3 Improvement programme requirements		
Reference	Improvement Condition	Completion date
IC1	<p>The operator shall submit a surface water pollution risk assessment to the Environment Agency for approval, which shall assess the impact of discharges of hazardous pollutants to surface water and/or sewer from the installation. The risk assessment shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> • 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 <u>M18</u> guidance; and • a risk assessment carried out in accordance with the screening procedures in Environment Agency guidance "<u>Surface water pollution risk assessment for your environmental permit</u>", using the representative emissions data obtained in (a) above. 	<p>Within 12 months of effective date of notice V002</p>
IC2	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the BAT-AELs where BAT is currently not achieved, but will be achieved before 30th June 2020. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1) Current performance against the BAT-AEL. 2) Methodology for reaching the BAT-AELs. 3) Associated targets / timelines for reaching compliance by 30th June 2020. 4) Any alterations to the initial plan. <p>The report shall address the following BAT Conclusions: BAT 81, (compliance with BAT-AELs for particulate matter from the melting furnace). BAT 82, (compliance with BAT-AELs for particulate matter from the melting furnace). Refer to BAT Conclusions and Table 3.1b for a full description of the BAT requirements.</p>	<p>Interim progress report by 30th June 2019</p> <p>Final report by 31st March 2020</p>
IC3	<p>The operator shall undertake a review of periodic monitoring for emissions to air of Particulate Matter, and HF from emission points A2, A4, A8 and A15. 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 30th June 2020.</p> <p>The evidence required under this condition shall include analysis and interpretation of monitoring results for each substance, and performance against the relevant BAT-AEL. Consideration should be given to <i>inter alia</i> the nature of the</p>	<p>Report to be submitted within 6 Months from issue of EPR/GP3639ZY/V002</p>

Table S1.3 Improvement programme requirements		
Reference	Improvement Condition	Completion date
	<p>raw materials, fluxing agents, refining chemicals used; operational stability; and process monitoring associated with operation of abatement plant. The quantity of monitoring data considered must be justified and be sufficient so as to demonstrate that the results are statistically representative of emissions during normal operations, covering the concentration range and mass emission rate of substances emitted at all stages of the process.</p> <p>A report on the above review shall be submitted to the Environment Agency to facilitate agreement in writing of the appropriate monitoring provision at the installation.</p>	

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Commercial grade aluminium	Free from organic contamination.

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)	Reference period	Monitoring frequency	Monitoring standard or method
A2 [A2 as shown in Drawing Number - 9001091 referenced by table S1.2.]	10 Tonne Mono (reverberatory furnace), preheating oven and Mecatherm Furnace	No parameters set	No limits set	-	-	-
A3 [A3 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Salts weighing plant filter unit (Unit No 43)	No parameters set	No limits set	-	-	-
A4 [A4 as in Drawing Number - 9003340 referenced by table S1.2.]	Fluoride fume filter plant (unit No 44), also serves four electric induction furnace bodies (identified as MX, NX and Z)	Particulate Matter	10 mg/m ³	Any representative spot sample	Annually	BS 13284 - 1 and MID
		Gaseous Fluorides (as HF)	1 mg/m ³	Average over sample period	Annually	ISO 15713 and MID
A5 [A5 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Lime silo filtered exhaust	No parameters set	No limits set	-	-	-
A6 [A6 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Lime surge hopper filtered exhaust	No parameters set	No limits set	-	-	-
A7 [A7 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Waste lime hopper filtered exhaust	No parameters set	No limits set	-	-	-
A8 [A8 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Aluminium alloys fume filter plant (Unit No 45) – serves five electric induction furnace bodies (identified as B, C, D, S and T)	Particulate Matter	10 mg/m ³	Any representative spot sample	Annually	BS 13284 - 1 and MID

**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)	Reference period	Monitoring frequency	Monitoring standard or method
A9 [A9 as shown in Drawing Number - 9001091 referenced by table S1.2.]	Aluminium Alloys continuous casting machine (steam)	No parameters set	No limits set	-	-	-
A10 [as shown in Drawing Number - 9001091 referenced by table S1.2.]	Rolling mill (oil/water mist)	No parameters set	No limits set	-	-	-
A11 [A11 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Shot blast extractor filter unit (Unit No 30)	No parameters set	No limits set	-	-	-
A12 [A12 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Shot blast extractor filter unit (Unit No 31)	No parameters set	No limits set	-	-	-
A13 [A13 as shown in Drawing Number - 9001091 referenced by table S1.2.]	Aluminium alloys casting machine (steam from cooling)	No parameters set	No limits set	-	-	-
A14 [A14 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Rolling mill (oil/water mist)	No parameters set	No limits set	-	-	-
A15 [A15 as shown in Drawing Number – 9003340 referenced by table S1.2.]	X and Y holding furnace fume plant	Particulate Matter	10 mg/m ³	Any representative spot sample	Annually	BS 13284 - 1 and MID

Note 1: for continuous monitoring the limit shall be complied with if 95% of the hourly average readings for each rolling 24 hours do not exceed the emission limit value and the peak hourly average does not exceed 1.5 times the limit value

Note 2: 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 1}	Monitoring frequency ^{Note 1}	Monitoring standard or method ^{Note 1}
A2 [A2 as shown in Drawing Number - 9001091 referenced by table S1.2.]	10 Tonne Mono (reverberatory furnace), preheating oven and Mecatherm Furnace	Particulate Matter	5mg/Nm ³	Average over the sampling period	Once per year	BS 13284 - 1 and MID
A3 [A3 as shown in Drawing Number - 9003340 referenced by table S1.2.]	Salts weighing plant filter unit (Unit No 43)	No parameters set	No limits set	-	-	-
A4 [A4 as in Drawing Number - 9003340 referenced by table S1.2.]	Fluoride fume filter plant (unit No 44), also serves four electric induction furnace bodies (identified as MX, NX and Z)	Particulate Matter	5 mg/Nm ³	Average over the sampling period	Once per year	BS 13284 - 1 and MID
		Gaseous Fluorides (as HF)	1 mg/Nm ³	Average over sample period	Once per year	ISO 15713 and MID
A5 [A5 as shown in Drawing Number - 9003340referenced by table S1.2.]	Lime silo filtered exhaust	No parameters set	No limits set	-	-	-
A6 [A6 as shown in Drawing Number - 9003340referenced by table S1.2.]	Lime surge hopper filtered exhaust	No parameters set	No limits set	-	-	-
A7 [A7 as shown in Drawing Number - 9003340referenced by table S1.2.]	Waste lime hopper filtered exhaust	No parameters set	No limits set	-	-	-
A8 [A8 as shown in Drawing Number - 9003340referenced by table S1.2.]	Aluminium alloys fume filter plant (Unit No 45) – serves five electric induction furnace bodies (identified as B, C, D, S and T)	Particulate Matter	5 mg/Nm ³	Average over sample period	Once per year	BS 13284 - 1 and MID
A9 [A9 as shown in Drawing Number - 9001091 referenced by table S1.2.]	Aluminium Alloys continuous casting machine (steam)	No parameters set	No limits set	-	-	-

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 1}	Monitoring frequency ^{Note 1}	Monitoring standard or method ^{Note 1}
A10 [as shown in Drawing Number - 9001091 referenced by table S1.2.]	Rolling mill (oil/water mist)	No parameters set	No limits set	-	-	-
A11 [A11 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Shot blast extractor filter unit (Unit No 30)	No parameters set	No limits set	-	-	-
A12 [A12 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Shot blast extractor filter unit (Unit No 31)	No parameters set	No limits set	-	-	-
A13 [A13 as shown in Drawing Number - 9001091 referenced by table S1.2.]	Aluminium alloys casting machine (steam from cooling)	No parameters set	No limits set	-	-	-
A14 [A14 as shown in Drawing Number – 9003340 referenced by table S1.2.]	Rolling mill (oil/water mist)	No parameters set	No limits set	-	-	-
A15 [A15 as shown in Drawing Number – 9003340 referenced by table S1.2.]	X and Y holding furnace fume plant	Particulate Matter	5 mg/Nm ³	Average over the sampling period	Once per year	BS 13284 - 1 and MID

Note 1: Monitoring to be undertaken in accordance with stated requirements in Table S3.1b pending completion of Improvement Condition IC03 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
W1 [WE1 as shown in Drawing Number - 9001091 referenced by table S1.2.] emission to River Rother	Site drainage, roof water and cooling water.	No Parameter Set	No Limit Set	-	-	-

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
W2 [WE2 as shown in Drawing Number - 9001091 referenced by table S1.2.] emission to River Rother	Site drainage and roof water	No Parameter Set	No Limit Set	-	-	-
W3 [WE3 as shown in Drawing Number - 9001091 referenced by table S1.2.] emission to River Rother	Site drainage and roof water	No Parameter Set	No Limit Set	-	-	-
W4 [WE4 as shown in Drawing Number - 2660017 referenced by table S1.2.] emission to River Rother	Site drainage from the warehouse loading/unloading pad via interceptor	No Parameter Set	No Limit Set	-	-	-

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 [SE1 as shown in Drawing Number - 9001091 referenced by table S1.2.] emission to Yorkshire Water	Cooling water	No Parameter Set	No Limit Set	-	-	-
S2 [SE2 as shown in Drawing Number - 9001091 referenced by table S1.2.] emission to Yorkshire Water	Cooling water	No Parameter Set	No Limit Set	-	-	-

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site—emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S3 [SE3 as shown in Drawing Number - 2660017 referenced by table S1.2.] emission to Yorkshire Water	Roof water	No Parameter Set	No Limit Set	-	-	-

Schedule 4 – Reporting

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

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	For parameters specified in Table 3.1a (effective until 29 June 2020) A4, A8, A15	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1, W2, W3, W4	Every 12 months	1 January
Emissions to sewer Parameters as required by condition 3.5.1	S1, S2, S3	Every 12 months	1 January

Parameter	Units
Finished product	tonnes

Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	05/06/18
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	05/06/18
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	05/06/18
Performance Parameters	Form energy 1 or other form as agreed in writing by the Environment Agency	05/06/18

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.

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

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

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

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

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

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

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:

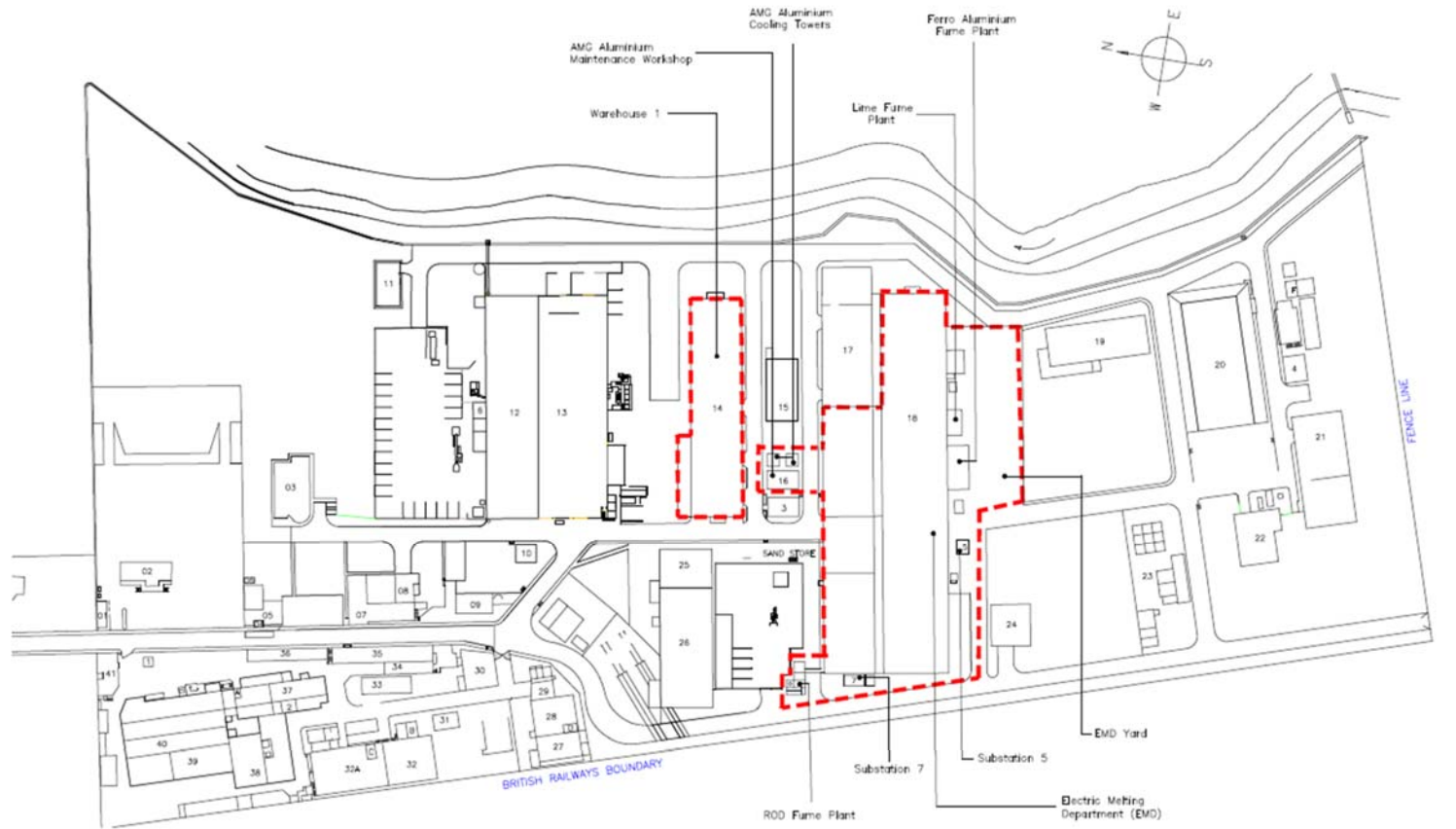
- in relation to emissions from combustion processes and not subject to BAT-AELs for air emissions, the concentration in dry air at a temperature of 273.15K, at a pressure of 101.3 kPa, and with an oxygen content of 3% dry for liquid and gaseous fuels and 6% dry for solid fuels; and/or
- in relation 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.

Schedule 7 – Site plan

DRG NO 2690392 C



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END OF PERMIT

Permit number
EPR/GP3639ZY