

Cannock Chase Council



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Norton Aluminium Limited

Norton Green Lane

Norton Canes

Cannock

Staffordshire

WS11 9PS

Permit Number

EPR 01/20/01/20

Norton Aluminium Ltd

Permit number EPR 01/20/01/20

Introductory Note

This Introductory note does not form a part of the notice

The following Permit is granted under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I.2016/1154) ("the EP Regulations") to operate an installation carrying out one or more of the activities listed in Schedule 1, Section 2.2, Part A(2)(a)(i) of those Regulations, to the extent authorised by the Permit:

Melting, including making alloys of, non-ferrous metals, including recovered products and operating of non-ferrous metal foundries where the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals, and no 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.

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 and a notice 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 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 13th 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 1-19 and 74-86.

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

The installation is operated by Norton Aluminium Limited and is located in Norton Canes, Cannock, Staffordshire.

The installation is centred at National Grid Reference (NGR) SK 0175 0780, at a site off Norton Green Lane, south of town of Norton Canes in Staffordshire. Access to the site is from Norton Green Lane.

The primary business of Norton Aluminium is the manufacture of refined metal in ingot form.

Norton Aluminium Limited operate a process in which scrap aluminium is melted and treated where necessary, to produce aluminium alloys to a range of specification. The process has an installed capacity of more than 20,000 tonnes of product per year, which may be in the form of cast aluminium ingot or blocks, or molten metal despatched in specialised containers.

The company utilises multi cyclones, ceramic and bag filtration equipment to abate releases from the local extraction from the swarf drying, melting and holding furnaces.

The company uses electric induction furnaces, and gas fired rotary furnaces from which molten metal is laundered to holding furnaces and then to a casting track. The melting furnaces have a maximum design holding capacity of less than 5 tonnes.

Status log of the permit		
Description	Date	Comments
Authorisation	5 th June 2007	IPPC 2.2 A2(ii) 04/07
Variation notice & consolidated permit	29 th July 2009	IPPC 2.2 A2(ii) 04/07/P1
Variation notice & consolidated permit	4 th October 2010	IPPC 2.2 A2(ii) 04/07/P2
Variation notice & consolidated permit	18 th October 2010	IPPC 2.2 A2(ii) 04/07/P3
Variation notice & consolidated permit	9 th September 2011	IPPC 2.2 A2(ii) 04/07/P4
Variation notice & consolidated permit	25 th April 2012	IPPC 2.2 A2(ii) 0/13
Variation notice & consolidated permit	22 nd January 2013	IPPC 2.2 A2(ii) 0/13/P1
Variation notice & consolidated permit	19 th November 2013	IPPC 2.2 A2(ii) 0/13/P2

Notice of variation and consolidation

The Environmental Permitting (England & Wales Regulations 2016

Cannock Chase Council in exercise of its powers under regulation 20 of the Environmental Permitting (England & Wales) Regulations 2016 varies and consolidates

Permit Number

EPR 01/20/01/20

Issued to

Norton Aluminium Limited (“the operator”)

Whose registered office is

Norton Green Lane

Norton Canes

Cannock

Staffordshire

WS11 9PS

Company Registration Number 4057749

To operate an installation at:

Norton Aluminium Limited

Norton Green Lane

Norton Canes

Cannock

Staffordshire

WS11 9PS

To extent set out in the schedules.

The notice shall take effect from 1st February 2020

Signed

Handwritten signature in black ink, appearing to read 'M Edwards'.

Head of Environment and Healthy Lifestyles

The Proper Officer Designated to sign on behalf of the Council

Cannock Chase District Council

Dated

Schedule 1

All conditions have been varied by the consolidated permit.

Schedule 2 – **Consolidated permit**

Consolidated permit issued as a separate document

Permit

The Environmental Permitting (England & Wales) Regulations 2016

Permit number

EPR 01/20/01/20

This is the consolidated permit referred to in the variation and consolidation notice authorising:

Norton Aluminium Limited (“the operator”)

Whose registered address is

Norton Green Lane

Norton Canes

Cannock

Staffordshire

WS11 9PS

Company Registration Number 4057749

To operate an installation at

Norton Aluminium Limited

Norton Green Lane

Norton Canes

Cannock

Staffordshire

WS11 9PS

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

Signed

A handwritten signature in dark ink, appearing to read 'M Edwards', is written over a horizontal line.

Head of Environment and Healthy Lifestyles

The Proper Officer Designated to sign on behalf of the Council

Cannock Chase District Council

Dated

Conditions

1. Management

1.1. General Management

1.1.1. The operator shall manage and operate the activities:

- a) In accordance with Table 2, implement a written environmental management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, 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) In accordance with Table 2, 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. Process Control

1.3.1. In accordance with Table 2, stable process operations shall be maintained.

2. Operations

2.1. Permitted Activities

2.1.1. The operator is only authorised to carry out the activities specified in Table 1.

2.2. The site

2.2.1. The activities shall not extend beyond the site, being the land shown edged in blue on the site plan at Figure 1 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 Table 2 unless otherwise agreed in writing by the regulator.

2.3.2. If notified by the regulator that the activities are giving rise to pollution, the operator shall submit to the regulator for approval within the period specified, a revision of any plan or other documentation ("a plan") specified in Table 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 regulator.

2.4. Raw Materials and Waste

2.4.1. Any raw materials specified in Table 4 shall conform to the specifications set out in that table.

2.4.2. Waste shall only be accepted if:

- a) It is of a type and quantity listed in Table 4.
- b) It conforms to the description in the documentation supplied by the producer and holder.

2.4.3. Waste materials shall not be accepted if it is of a type listed as prohibited in Table 4.

2.4.4. 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 permitted activities.
- b) Any waste produced by the permitted activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive.
- c) Where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

2.4.5. The operator shall review and record at least every four years whether changes to those measures in 2.4.4 should be made, and take any further appropriate measures identified by the review

2.4.6. 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 receipt of the waste:

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

2.4.7. Listed materials shall only be stored in areas in Table 5.

2.5. Improvement Programme

2.5.1. The operator shall complete the improvements specified in Table 3 by the date specified in that table unless otherwise agreed in writing by the regulator.

2.5.2. Except in the case of an improvement which consists only of a submission to the regulator, the operator shall notify the regulator within 14 days of completion of each improvement.

3. Emissions and Monitoring

3.1. Emissions to water, air and land

- 3.1.1. There shall be no point source emissions to water, air or land except from sources and emission points listed in Tables 7 and 8.
- 3.1.2. The limits given in Table 7 shall not be exceeded.
- 3.1.3. Periodic monitoring shall be carried out at least twice every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systemic appraisal of the risk of contamination as stated in Table 3.
- 3.1.4. Groundwater and soil monitoring shall be undertaken at the frequency determined in accordance with Article 16 of IED, which requires that groundwater monitoring is carried out every 5 years and soil monitoring every 10 years, unless there is a risk assessment in place which indicates a different monitoring frequency or that monitoring is not required. Please get the operator to carry out such a risk assessment as part of the permit review.

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 regulator that the activities are giving rise to pollution, submit to the regulator 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 regulator.
- 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 regulatory officer, 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 odour.
- 3.3.2. The operator shall:
 - a) If notified by the regulator that the activities are giving rise to pollution outside the site due to odour, submit to the regulator 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 regulator.

3.4. Noise & 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 Council, 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 regulator that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the regulator 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 with the regulator.

3.5. Monitoring

3.5.1. The operator shall, unless otherwise agreed in writing by the regulator, undertake the monitoring specified in the following tables in Schedule 2.3 to this permit.

- a) Point source emissions specified in Tables 7 and 8 to this permit.

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),

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 2.3, Tables 7 and 8 unless otherwise agreed in writing with the regulator.

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 regulator, 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 in this permit, unless otherwise agreed in writing by the regulator.

4.2. Reporting

4.2.1. The operator shall send all reports and notifications required by the permit to the regulator using contact details supplied in writing by Cannock Chase Council.

4.2.2. A report or reports on the performance of the activities over the previous year shall be submitted to the regulator by 31 January (or other date agreed in writing by the regulator) 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 performance parameters set out in Table 10.

4.2.3. Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the regulator, 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 Table 10.
- b) For the reporting periods specified in Table 11; 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 regulator, 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 give rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately –
 - I. Inform the regulator
 - 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 permit condition the operator must immediately –
 - I. Inform the regulator, and
 - II. Take measures necessary to ensure that compliance is restored within the shortest possible time;
- c) Of breach of a permit condition which poses an immediate danger to human health or threatens to cause 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 4.3.2 (b)I where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending information listed in Schedule 2.5 to this permit within the time period specified in that schedule.

4.3.3. Where the regulator 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 regulator when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the regulator at least 14 days before the date the monitoring is to be undertaken.

4.3.4. The regulator 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:

- c) Any change in the operator's name or address; and
- d) Any steps taken with a view to the dissolution of the operator.

4.3.5. Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- a) The regulator 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 regulator 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 Table 15 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 2.1 – Operations

TABLE 1: ACTIVITIES

Description of Activities	Schedule 1 Activity	Limits of Activities
Melting over 20 tonnes of aluminium alloys per day,	2.2 Part A2 (a)	Within the main building only.
Melting aluminium alloys in a rotary furnace and one fixed axis furnace with a design holding capacity of under 5 tonnes.	2.2 Part A2 (a)(ii)	Within the rotary furnace fitted with ducted extraction and abatement only.
Melting aluminium alloys using two tilting axis and one fixed axis gas fired rotary furnaces with a design holding capacity of under 5 tonnes		Within the two tilting axis gas fired rotary furnaces fitted with ducted extraction and abatement only.
Melting of aluminium alloys using four induction furnaces, two of 2.5 tonnes capacity and two of 1 tonne capacity.		Within the induction furnaces only.
Raw material pre-treatment including processing swarf in a swarf dryer to remove liquids prior to melting.	Associated activity	Heat associated pre-treatment within the swarf dryer only.
Holding molten metal prior to casting and adjusting alloy composition in five gas fired holding furnaces with a design holding capacity of under 5 tonnes.	2.2 Part A2 (a)(ii)	Holding furnaces for the holding and casting of metal ingots from metals melted within the above furnaces only.
Melting aluminium in 300kg electric resistance melting furnaces and casting into sand moulds.		Within the casting building only.
Receipt, storage and handling of scrap metal prior to processing.	Associated activity	Storage and handling in accordance within Table 5.
Receipt, handling and storage prior to use of all other raw materials including oil.		Within the areas detailed within Table 5.
Ingot castings		From the furnaces only.
Storage of dross, slag and		Waste storage within the

other waste materials prior to removal from site.		areas detailed in Table 6.
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TABLE 2: MANAGEMENT AND OPERATING TECHNIQUES TO ACHIEVE COMPLIANCE WITH PERMIT CONDITIONS

Condition to comply with	Techniques
Condition 1.1 Environmental Management System	<p>Implement and adhere to an environmental management system (EMS) such as ISO 14001 Environmental Management that incorporates all of the following features:</p> <p>(a) Commitment of the management, including senior management;</p> <p>(b) Definition of an environmental policy that includes the continuous improvement of the installation by the management;</p> <p>(c) Planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment;</p> <p>(d) Implementation of procedures paying particular attention to:</p> <ul style="list-style-type: none"> (i) Structure and responsibility, (ii) Recruitment, training, awareness and competence. This shall cover the following: <ul style="list-style-type: none"> • Staff shall be made aware of the regulatory implications of the permit, any potential environmental impacts under normal and abnormal circumstances and procedures for dealing with a breach of the permit conditions, prevention of accidental emissions and actions to be taken when accidental emissions occur and awareness of all operating procedures. • The potential environmental risks posed by contractors shall be assessed and instructions provided to contractors about protecting the environment whilst working on site. (iii) Communication, (iv) Employee involvement, (v) Documentation, (vi) Effective process control, (vii) Maintenance programmes to ensure that: <ul style="list-style-type: none"> • All plant, equipment and technical means, including performance of dust abatement systems, are in good condition. • Equipment failures are minimised, including non-productive items such as tanks, bunds, ducts and filters whose failure could impact on the environment. (viii) Emergency preparedness and response, (ix) Safeguarding compliance with environmental legislation; <p>(e) Checking performance and taking corrective action, paying particular attention to:</p> <ul style="list-style-type: none"> (i) Monitoring and measurement (see also the Reference Report on Monitoring of emissions to Air and Water from IED installations-ROM),

Condition to comply with	Techniques
	<p>(ii) Corrective and preventive action,</p> <p>(iii) Maintenance of records,</p> <p>(iv) Independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained;</p> <p>(f) Review of the EMS and its continuing suitability, adequacy and effectiveness by senior management;</p> <p>(g) Following the development of cleaner technologies;</p> <p>(h) Consideration for the environmental impacts from the eventual decommissioning of the installation at the stage of designing a new plant, and throughout its operating life.</p> <p>(i) Application of sectoral benchmarking on a regular basis.</p>
Condition 1.2 Energy Efficiency	<p>In order to use energy efficiently, the following measures and techniques shall be used:</p> <ul style="list-style-type: none"> • Utilise an energy efficiency management system such as ISO 5001 • Employ insulation around high temperature equipment, including furnaces and launders.
	<ul style="list-style-type: none"> • Electrical energy shall be used as the primary source of energy to melt aluminium in the induction furnaces, to drive the rotating components of the rotary furnaces and the swarf dryer and to provide power for auxiliary equipment. • Gas shall be used as a primary fuel on the rotary furnaces the swarf dryer and holding furnaces.
Condition 1.3 Process Control	<p>Use a process control system together with:</p> <ul style="list-style-type: none"> • Inspection and selection of input materials according to the process and the abatement techniques applied • Good mixing of the feed materials to achieve optimum conversion efficiency and reduce emissions and rejects • Feed weighing and metering systems • Processors to control material feed rate, critical process parameters and conditions including the alarm, combustion conditions and gas additions (Needs amending) • Monitor gas temperature, pressure drop and ESP current parameters of the air emission abatement plant • Monitor furnace temperatures.
Condition 2.4 Avoidance, recovery and disposal of	<p>In order to minimise waste, the following techniques shall be employed:</p> <ul style="list-style-type: none"> • Full recycling of salt slag • Remove oil and organic constituents from contaminated swarf

Condition to comply with	Techniques	
wastes produced by the activities	before melting <ul style="list-style-type: none">Use the induction furnaces or the tilting rotary furnaces in preference to the fixed axis furnace where feasible.	
Condition 2.4 Efficient use of raw materials	In order to increase raw materials' yields, metals other than aluminium shall be separated by: <ul style="list-style-type: none">Magnetic separation of ferrous metals.	
Condition 3.1 Emissions to water, air or land	Pre-melting Oil and organic compounds shall be removed from significantly contaminated swarf before to the melting stage by use of the following techniques: <ul style="list-style-type: none">Swarf drying.	
	The following techniques shall be utilised to reduce emissions to air of organic compounds and PCDD/F from the thermal treatment of contaminated raw materials and from the melting furnaces: <ul style="list-style-type: none">Bag filters;Select and feed the raw materials according to the furnace and abatement techniques used.Audible or visual alarms within the plant control room shall be triggered if the following alarms and set point points triggered:	
	Alarm	Alarm Set Point
	High temperature prior to swarf dryer bag-house	Dilution air setting 110 °C Alarm setting 130 °C (Alarm) Auto shutdown 145 °C
	High temperature prior to main bag-house (D1)	Dilution air setting 110 °C Auto shutdown 1500 °C
	Set point thermal reclamation plant temperature	710 °C (no alarm)
	Thermal reclamation plant-bag house inlet temperature	Approximately 90 °C Alarm setting 120 °C Auto shut down 140 °C

Condition to comply with	Techniques			
	Thermal plant low temperature alarm		650°C (Alarm)	
	The following techniques shall be used to reduce dust and metal emissions from swarf drying: Bag filters.			
	The following techniques shall be used to reduce dust and metal emissions from charging, melting and tapping and molten metal treatment of secondary aluminium: <ul style="list-style-type: none">• Bag filters.			
	The following techniques shall be used to reduce dust and metal emissions from re-melting of secondary aluminium: <ul style="list-style-type: none">• Optimise use of uncontaminated material, ie solid material free of substances such as paint, plastic or oil;• Optimise combustion conditions to reduce the emission of dust Bag filters.			
	The following techniques shall be used to reduce the acid emissions from the thermal treatment of contaminated secondary raw materials, the melting furnace, and re-melting and molten metal treatment: <ul style="list-style-type: none">• Select and feed the raw materials according to the furnace and abatement techniques used; Ca(OH)2 or sodium bicarbonate injection in combination with a bag filter.			
	The following parameters shall be adhered to, to ensure adequate dispersion of stack emissions:			
	Stack	Location/plant	Minimum efflux velocity	Height (metres)
	A1	Combined exhaust from extraction abatement equipment serving melting and holding furnaces & exhaust from cyclone and bag filter serving the swarf dryer.	15 m/sec	44 m
	The following shall be used to reduce to ensure adequate dispersion of stack emissions: <ul style="list-style-type: none">• Stacks shall not be fitted with any restriction at the final opening such as a plate cap or cowl. Cones to increase exit velocity shall be permitted.			
	There shall be no emission to land from the Permitted Installation There			

Condition to comply with	Techniques
	shall be no direct emissions to surface waters from the installation. Storm water run off from the South yard shall not contain any substance prescribed for water which is in excess of the background concentration.
	There shall be no emission into the sewer from the Permitted installation of any substance prescribed for water for which is not listed in the discharge consent from Severn Trent Water Co except in a concentration, which is no greater than the background concentration.
	When complaints of noise attributable to the installation are received an investigation shall be carried out. Action shall be taken where necessary, and without undue delay, to identify and remedy any breakdown or malfunction of equipment likely to have led to the complaint being made. Details of the complaint and investigation shall be recorded.
Condition 3.2 ‘Emissions of substances not controlled by emission limits’ & Condition 3.3 ‘Odour’	Diffuse emissions to air and water shall be collected as near as possible to the source and treated.
	Diffuse emissions from within the foundry building and from waste materials stored outside the building have been identified as a cause of pollution. The operator is to:
	<ul style="list-style-type: none"> • Submit to the regulator 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. Regard should be made to EN 15445;
	<ul style="list-style-type: none"> • Implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the regulator.
	Diffuse emissions from storage of raw materials shall be prevented by the following techniques: <ul style="list-style-type: none"> • Enclosed buildings or silos / bins / bags for storage of dust-forming materials such as concentrates, fluxes and fine materials • Covered storage of non-dust forming materials such as concentrates, fluxes solid fuels, bulk materials and secondary materials that contain water soluble organic compounds
	Diffuse emissions from handling and transport of raw materials shall be prevented by use of a combination of two or more of the following techniques: <ul style="list-style-type: none"> • Minimise transport distances • Use planned campaigns for road sweeping • Segregate incompatible materials (e.g. oxidising agents and organic materials) • Minimise material transfers between
	Diffuse emissions from metal production shall be prevented by the following techniques:

Condition to comply with	Techniques
	<ul style="list-style-type: none"> • Thermal treatment of secondary raw materials to minimise organic contamination of the furnace feed (swarf drying) • Dust or Fume collection at furnace charging locations and dross whilst emissions continue to take place. • Treat collected emissions in an adequate abatement system.

TABLE 3: IMPROVEMENT PROGRAMME REQUIREMENTS

Reference	Improvement Condition	Completion Date
Condition 1.2 and Table 2	Implement an energy efficiency management system. ISO 5001 may be a useful reference.	30 June 2020
Condition 3.2 'Emissions of substances not controlled by emission limits' & Condition 3.3 'Odour'	Submit to the regulator 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;	Within 3 months of issue of this permit.
	Implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the regulator.	Within 6 months of agreement with regulator.
Condition 3.1 Emissions to water, air or land	Undertake a risk assessment to determine the frequency of groundwater and soil monitoring as required by Article 16 of the IED, or that monitoring is not required.	Within 3 months of issue of this permit.

Schedule 2.2 – waste types, raw materials and fuels

TABLE 4: PRIMARY & AUXILLARY RAW MATERIALS AND OTHER SUBSTANCES CONSUMED IN THE PROCESS THAT FORM PART OF THE PRODUCT, AND MATERIALS PROHIBITED FROM THE PROCESS.

Material	European Waste Classification Code (where relevant)	Reason for use	Fate
Primary Raw Materials			
Aluminium, scrap aluminium and dross	16 01 18 17 04 02 17 04 07	Primary constituent (maximum annual requirement equivalent to approximately 20,000 tonnes of aluminium alloy).	Yield on electric furnaces >90%
Aluminium alloy swarf	17 04 02		Yields on rotary furnaces lie between 30% and 85%.
Composite material containing aluminium alloy	17 04 07		
Solid clean metal scrap for alloying constituents (e.g. copper)	17 04 01	Essential alloy additions to alter the chemical composition of the molten aluminium to the required specification.	Yields are similar to those of the primary metal constituent.
Virgin metals such as silicon, manganese, magnesium, zinc and pure aluminium			
Binary and tertiary master alloys (e.g. Al/Ni and Al/Ti/B)			
Auxillary Raw Materials			
Alkali metals salts for use as fluxes		Minimises oxidation of metal during operation of the rotary furnaces. Increases thermal efficiency by aiding transfer of heat to the metal in the rotary furnaces. Also used in small amounts in the induction and holding	

Material	European Waste Classification Code (where relevant)	Reason for use	Fate
		furnaces. Current requirements of the order of 2000 tonnes per year.	
Potassium aluminium fluoride (PAF)		Used to reduce the concentration of calcium and magnesium in alloys. Can be added to flux to improve wetting of the metal making the flux more effective in preventing oxidation. Current requirements could rise to 400 tonnes per year.	
Sodium bicarbonate/calmote or carbon filter aid		Used to reduce acidity of exhaust gases to minimise emissions to air. Estimated usage of up to 60 tonnes.	
Other consumables and raw materials used in the process			
Oils, greases and other lubricants		As required for engineering purposes and fork lift trucks.	Disposal off site.
Furnace refractory including brick and casting refractory		To replace refractory linings as they become worn. 100 tonnes per	In time the refractory lining is eroded away and lost to slag and the furnace must be

Material	European Waste Classification Code (where relevant)	Reason for use	Fate
		year.	relined. Old refractory removed from the furnaces is disposed of as waste.
Industrial gases: nitrogen		Used as a cleaning agent. When bubbled through molten metal in proprietary filter unit, the gas encourages agglomeration of slag inclusions thereby aiding their removal.	Inert gas lost to atmosphere.
Sand binding systems.		Used to harden the sand moulds and cores for improved product quality.	Thermal sand reclamation system, carbon abatement, off site disposal.
Material Prohibited from the process			
Materials containing mercury shall not be included.	16 01 08 16 03 07		Shall not be included in incoming materials.

TABLE 5: STORAGE AREAS FOR LISTED MATERIALS

Material	Location of storage on site	Description of storage on site	Storage conditions
Contaminated swarf.	Within the scrap storage areas identified on the plan in Figure 1.	On a concreted-floor area with roofed cover.	Run-off drainage shall be directed to an interceptor which then discharges to a foul sewer.
Scrap aluminium including used cans, tubes and painted scrap containing and including unspecified contaminants.		On a concreted-floor area.	Run-off drainage shall be directed to an interceptor which then discharges to a foul sewer. Rear yard drainage to an interceptor then to a soakaway (Release point W1).
Potassium aluminium fluoride (PAF).	Within the scrap storage areas identified on the plan in Figure 1 or within the buildings.	On a concrete-floored area with roofed storage bays or within the buildings.	Under cover.
Alkali metal salts for fluxes.			
Oils (including diesel and mineral oils).		Within bunded tanks or in drums on bunded pallets or on sealed concrete floors within bunded structures*	No storage of oils unless bunded. All interceptors shall be impermeable and resistant to the stored material, and be regularly checked by visual inspection and the check recorded (A specified record). Where necessary the contents shall be removed after testing for contamination. The results of the tests shall be recorded (A specified record).

** Bunded structures to a capacity of 110% of the largest container stored or 25% of the total volume of liquid stored, whichever is the greater, or where hard-standing is used that all drains are fitted with interceptors. All storage shall be fitted with high level alarms or volume indicators. Where practicable the filling system shall be interlocked to the alarm system. All drainage within the oil or chemical storage areas shall be fitted with interceptors and discharge to foul sewer only.*

TABLE 6: WASTE STORED ON SITE

Description of waste	Location of storage on site	Manner of storage	Storage conditions
Dross from furnaces	Within the storage areas identified on the plan in Schedule 2.7 or within the buildings.	Within dross pans or in a covered storage area.	Stored dry at all times.
Slag from rotary furnaces		Covered areas to cool and skips prior to removal for reprocessing.	Dross shall be cooled sufficiently to prevent smoky emissions prior to storage outside of the building.
Filtration plant dust		Storage within bins or bags	Sealed container storage only.
Sand from casting operations		Storage within the recovered sand silo the casting building, three sided storage bays or skip.	Wind whipping of external stored dry sand shall be minimised by stockpile height control and where necessary damping of stockpiles.
Bund wastes	Within the collection bunds.	Removal with a vacuum system.	Recovered where possible unless required to be disposed of by licensed contractor.
Interceptor wastes	Within the interceptor.		
Oils	Engineering workshop	*Bunded oil stands	Sealed drums, until removed by licensed contractor.
Oil drums	Oil drum store.	*Fully bunded	Sealed drums only.
Waste solvents	Interceptor protected hard-standing.	*Closed containers/ drums in bunded areas.	Held on site until removed by licensed contractor.
Wood waste	With general waste	External secure area.	No material likely to give rise to dust to be stored in open skips.
General waste			

*** Bunded structures to a capacity of 110% of the largest container stored or 25% of the total volume of liquid stored, whichever is the greater, or where hard-standing is used that all drains are fitted with interceptors. All storage shall be fitted with high level alarms or volume indicators. Where practicable the filling system shall be interlocked to the alarm system. All drainage within the oil or chemical storage areas shall be fitted with interceptors and discharge to foul sewer only.*

Schedule 2.3 – Emissions and monitoring

TABLE 7: POINT SOURCE EMISSIONS TO AIR - EMISSION LIMITS AND MONITORING REQUIREMENTS EFFECTIVE UNTIL 29 JUNE 2020

Emission point ref.	Source	Parameter	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard Method	Accreditation
A1 - as indicated on Figure 1	Combined exhaust from extraction abatement equipment serving melting and holding furnaces & exhaust from bag filter serving swarf dryer (D1, D2 & D3).	Dust	10 mg/m ³	Average over the sampling period	Continuous	EN 13284-1 or method stated within M2	Sampling to MCERTS standard
						EN 13284-1 or method stated within M2	
		Volatile organic compounds	50 mg/m ³		Once per year	EN 12619	
		Gaseous chlorides (as hydrogen chloride)	10 mg/m ³			BS EN 1911 or the method stated within M2	
		Gaseous fluorides (as hydrogen chloride)	5 mg/m ³			BS EN 15713 or the method stated within M2	
		Dioxins (PCDD/F)	1 ng/Nm ³	Average over a sampling period of at least six hours		EN 1948 parts 1,2 and 3	
		Visible emissions of smoke and / or particulate matter from any combustion process within the installation.	No visible smoke in normal operation and in any case shall not exceed the equivalent of Ringelmann Shade 1			BS 2742:1969	
Visible Oil	W1 (South Yard) and S1	Visibility	No visible oil	N/A	Annual	Visible inspection	N/A

TABLE 8: POINT SOURCE EMISSIONS TO AIR - EMISSION LIMITS AND MONITORING REQUIREMENTS EFFECTIVE FROM 29 JUNE 2020

Emission point ref.	Source	Parameter	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard Method	Accreditation
A1 - as indicated on Figure 1	Combined exhaust from extraction abatement equipment serving melting and holding furnaces & exhaust from bag filter serving swarf dryer (D1, D2 & D3).	Dust	5 mg/m ³	Average over the sampling period	Once per year	EN 13284-1	Sampling to MCERTS standard
		Volatile organic compounds	30 mg/m ³			EN 12619	
		Gaseous chlorides (as hydrogen chloride)	10 mg/m ³			BS EN 1911 or the method stated within M2	
		Gaseous fluorides (as hydrogen fluoride)	1 mg/m ³			BS EN 15713 or the method stated within M2	
						EN 14792	
		Dioxins (PCDD/F)	0.1 ng/Nm ³	Average over a sampling period of at least six hours		EN 1948 parts 1,2 and 3	
		Visible emissions of smoke and / or particulate matter from any combustion process within the installation.	No visible smoke in normal operation and in any case shall not exceed the equivalent of Ringelmann Shade 1			BS 2742:2009	
		Pressure drop			Continuous		
Across bag filters	Method of ensuring bag filters are operational. Indicative of adequate dust arrestment.	Odour			At least 5 minutes for every 24 hours of operation.		
Assessed at locations downwind of the process, on the installation boundary.	All Sources	Odour			At least 5 minutes for every 24 hours of operation.		
As determined by risk	groundwater and soil	As specified by Article 16 of the			As determined by risk		

[illegible]

Schedule 2.4 – Reporting

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

TABLE 9: 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	Every 12 months for extractive monitoring	1 st January

TABLE 10: PERFORMANCE PARAMETERS

Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh
Sodium bicarbonate / calmotex and carbo filter aid used to ensure effective control of acid gases, volatile organic compounds, dioxins and furans.	Evidence of monthly usage made available to the regulator upon request.	Kg
Pollutant releases and off site waste transfers pursuant to the establishment of a European Pollutant Release and Transfer.	Upon receipt of an information notice served by the regulator, information to be provided with the period specified within the notice.	As per instructions provided.

TABLE 11: REPORTING FORMS

Media / Parameter	Reporting Format
Air	Table 12
Energy usage	Table 13
Waste subject to conditions 4.3.5	Table 14

TABLE 12: REPORTING FORMAT - AIR

Permit Number: [Permit Number] **Operator:** [Operator name]
Facility: [Facility name] **Form Number:** Air1 / DD/MM/YY
Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]

1. The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
2. Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

Table 13: Reporting Format – Energy Use

Permit Number: [Permit Number]

Operator:

[Operator name]

Facility: [Facility name]

Form Number:

Energy1 / DD/MM/YY

Reporting of Energy Usage for the year 2006

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Natural Gas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

TABLE 14: REPORTING FORMAT- WASTE

Permit Number: [Permit Number] **Operator:** [Operator name]
Facility: [Facility name] **Form Number:** Performance1 / DD/MM/YY
Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Schedule 2.5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied 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	
Substance(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	
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	
Substance(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 2.6 - Interpretation

TABLE 15: INTERPRETATION OF WORDS & PHRASES

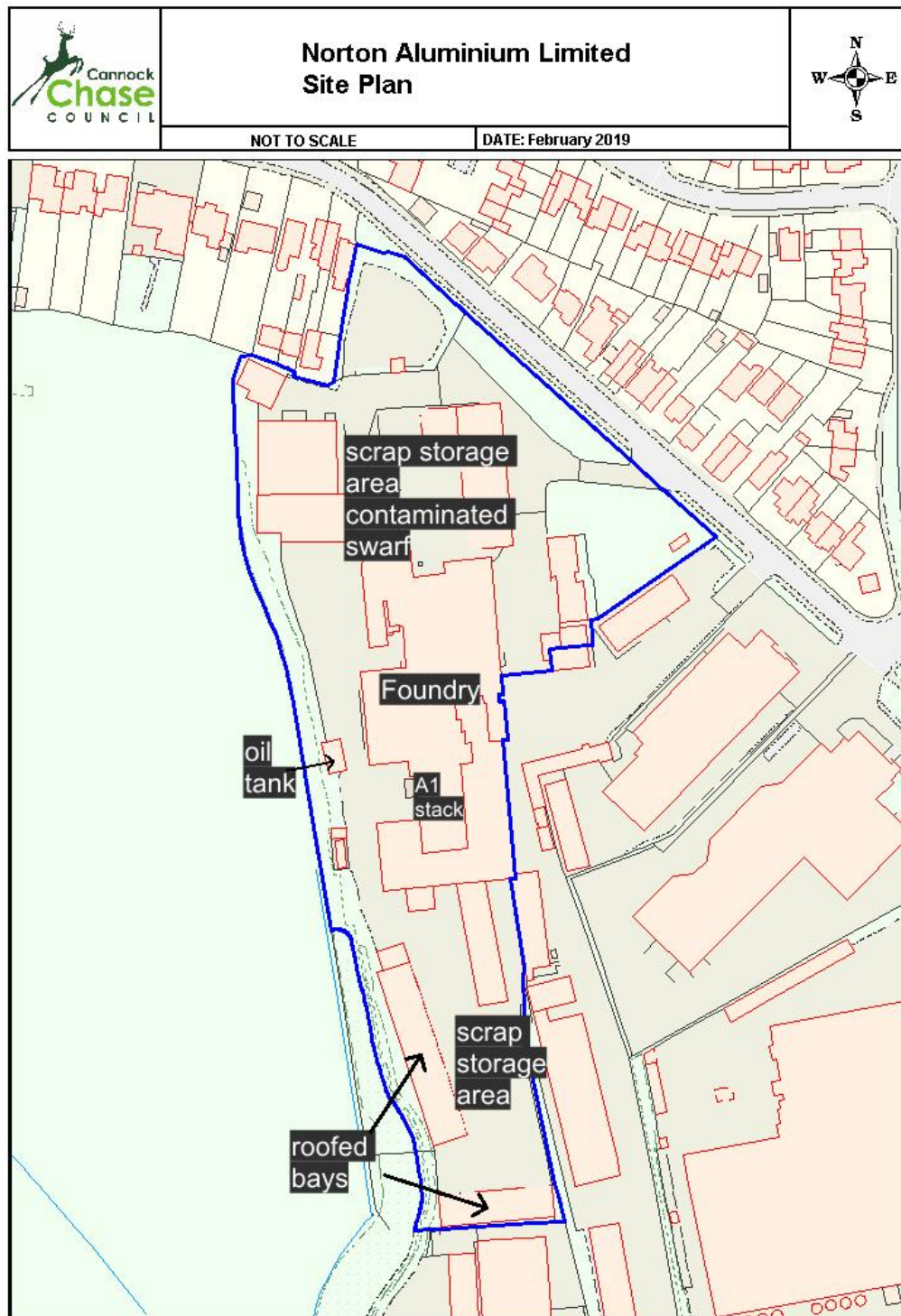
Reference	Meaning
“accident”	An accident that may result in pollution.
“application”	The application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.
“authorised officer”	Any person authorised by Cannock Chase Council 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.
“averaged over the sampling period”	The average value of three consecutive measurements of at least 30 minutes each, unless otherwise stated, as defined in the <i>General Considerations</i> 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”	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”	The average over a period of 24 hours of valid half-hourly or hourly averages obtained by continuous measurements, as defined in the <i>General Considerations</i> 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.
“EP Regulations”	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	Emissions of substances to air, water or land from 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.

Reference	Meaning
emission limits”	
“groundwater”	Means all water, which is below the surface of the ground in the saturated zone and in direct contact with the ground or subsoil.
“hazardous property”	Meaning given in Appendix III of the Waste Framework Directive.
“hazardous waste”	Meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).
“Industrial Emissions Directive”	DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32010L0075&from=EN
I-TEQ factor	International toxic equivalency derived by applying international toxic equivalence factors, as defined in Annex VI, part 2 of Directive 2010/75/EU
PAH	Polycyclic aromatic hydrocarbons
PCDD/F	Polychlorinated dibenzo-p-dioxins and dibenzofurans consisting of 17 congeners. The emission limit value is based on an I-TEQ factor.
“MCERTS”	The Environment Agency’s Monitoring Certification Scheme.
“monthly average”	The average over a period of a calendar month of valid daily averages obtained by continuous measurements.
NO _x	The sum of nitrogen monoxide (NO) and nitrogen dioxide (NO ₂), expressed as NO ₂ .
TVOC	Total volatile organic carbon; total volatile organic compounds which are measured by a flame ionisation detector (FID) and expressed as total carbon.
VOC	Volatile organic compounds as defined in Article 3(45) of Directive 2010/75/EU.
“the Regulator”	Cannock Chase Council.
Minimum limit	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.
Any reference in this permit to concentration of substances in emissions into air.	<p>Unless otherwise stated:</p> <ul style="list-style-type: none"> • In relation to emissions from combustion processes and not subject and not subject to BAT-AELs for air emissions, the concentration in dry air at a temperature of 273.15K, at a pressure of 101.3kPa, and with an oxygen content of 3% dry for a 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.

Reference	Meaning
	<ul style="list-style-type: none"> • In relation to emissions from non-combustion sources subject to BAT-AELs for air emissions, the concentration in dry air at temperature of 273.15 K 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”	Calendar year ending 31 st December.

Schedule 2.7 – Site Plan

FIGURE 1: SITE PLAN



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END OF PERMIT