

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Amtek Aluminium Castings (Witham) Limited
Amtek Aluminium Castings (Witham) Limited
Forge House
Stourport Road
Kidderminster
Worcestershire
DY11 7QE

Permit number

EPR/JP3335WG

Amtek Aluminium Castings (Witham) Limited

Permit number EPR/JP3335WG

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The installation will be operate the following Scheduled Activity:

Section 2.2 Part A(1) (b) of schedule 1 of the Environmental Permitting Regulations,

‘Melting including making alloys, of non-ferrous metals, including recovered products (refining, foundry casting etc.) where:

- (i) the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals; and
- (ii) any furnace bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 tonnes or more.’

The installation will be operating under a four phase plan:

Phase One: 1 furnace (6 tonne holding capacity) and 3 die cast machines.

Phase Two: 1 furnace and 7 die cast machines.

Phase Three (installed 4th Quarter 2017): 2 furnaces and 10 die cast machines.

Phase Four: The Final Stage: 3 furnaces and 24 die cast machines.

This application covers up to Phase Three.

The site at Kidderminster will focus on the melting and casting of aluminium to produce components for a required market; automotive parts. Raw material in the form of ingots or scrap will be bought to the site and melted before being cast into a desired component for export to the company’s plant at Coventry for machining, quality check and export to customers.

For the first 6 months of operation Amtek will only be melting Aluminium Ingots. Following this, the site will accept and process clean scrap Aluminium of a specific grades; ALAR/BSMA Scrap Classifications.

The Melting Process is a continuous activity of melting ingots, or recycled aluminium from operations in a natural gas furnace (Striko Melter MH II-T 6000/4000 G Plus+ hydraulically tiltable shaft furnace). Silicon, copper and iron are added to achieve an alloy composite. When the alloy reaches a molten state, it is ready for processing and the alloy is transferred to a holding furnace located at the die casting machine.

During the Die Cast & Trim Process, alloy from the holding furnace is dosed into a shot sleeve and injected with high pressure into a die. The alloy solidifies into a cast product. The cast product is robotically removed from the die and placed in a trim fixture to remove any excess material.

The trimmed cast products are then shot blasted to provide a uniform surface finish and remove any burrs.

Each furnace has a melt capacity of 4 tonnes per hour, and will produce metal for 80 hrs per week, 47 weeks per annum; giving a yearly total of $80 \times 4 \times 47 = 15,040$ tonnes per furnace /per annum.

The installation also comprises the following directly associated activities:

- Hydrated magnesium silicate lined filter bag, lime injection and internal burner system for the treatment of off-gas to be emitted via the stack
- An Effluent Treatment Plant (ETP) for process water - The process water (run-off from the scrap bays and die wash area) will be treated by the ETP and be re-circulated as process water. A small

percentage of process water from the ETP is discharged to sewer under consent, following treatment.

- Softening treatment and Reverse Osmosis system for cooling water - The softening plant is used to pre-treat incoming water prior to the cooling tower top up. Bleed off from the cooling tower goes through the Effluent Treatment Plant to the Reverse Osmosis plant, then into a storage tank prior to reuse in the cooling tower.
- An interceptor and attenuation tank for surface water run-off

Point source emissions:

- Emissions to air from a stack comprising combustion, melting and holding emissions
- Emissions to sewer of a small percentage of treated process water
- Emissions of surface water runoff to river - Site surface water is collected and discharged via a system of oil interceptors and attenuation tanks to the River Stour
- Waste skimmings/dross and salt slag emissions – the waste dross is cooled under extraction to a bag filter in order to capture any fumes, this waste dross and salt slag is collected from site for extraction and reuse by a contractor
- Waste flue dust

The site is based at an industrial site on the A451 between Kidderminster and Stourport at coordinates; 382140,273650.

There are 11 local sensitive receptors, 3 Sites of Special Scientific Interest (SSSI), 4 Local Wildlife Sites (LWS) and 2 Local Nature Reserves (LNR) within 2km of the installation.

The ISO 14001:2008 standard has been used as the basis for the implemented EMS, and although certification to this standard is yet to be achieved, such certification is expected and will be sought.

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

Status log of the permit		
Description	Date	Comments
Application EPR/JP3335WG/A001	Duly made 02/06/15	
Additional information received	24/08/15	Complete Response to Schedule 5 information notice sent 29/07/15
Additional information received	21/09/15	Complete Response to Schedule 5 Notice sent 11/09/15
Additional information received	05/11/15	Complete Response to Schedule 5 Notice sent 21/09/15
Additional information received	22/10/15	Complete Response to Schedule 5 Notice sent 08/10/15
Permit determined EPR/JP3335WG (PAS Billing ref. JP3335WG)	16/11/15	Permit issued to Amtek Aluminium Casting (Witham) Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/JP3335WG

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Amtek Aluminium Castings (Witham) Limited (“the operator”),

whose registered office is

16 Freebournes Road

Witham

Essex

CM8 3DX

company registration number 5470041

to operate an installation at

Amtek Aluminium Castings (Witham) Limited

Forge House

Stourport Road

Kidderminster

Worcestershire

DY11 7QE

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

Name	Date
J Linton	16/11/2015

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.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

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

1.3 Efficient use of raw materials

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

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

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

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Fire prevention

2.6.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Where a substance is specified in schedule 3 table S3.2 or S3.3 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.

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 S3.1, S3.2 and S3.3;
- 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 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

4.2.6 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.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—

- (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

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

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
S2.2 A(1)(b) Melting including making alloys, of non-ferrous metals, including recovered products and the operation of non-ferrous metal foundaries	Melting clean scrap and virgin ingot in a tiltable shaft furnace	Receipt of furnace charge to the production of automotive parts. No more than 30,080 tonnes per annum throughput.
Directly Associated Activity		
Storage and handling of raw materials	Storage of 'furnace ready' clean scrap aluminium R04 – Reclamation/Recycling of Metals R13 – Storage of Waste Prior to Recovery	Receipt of raw materials to transfer to furnaces Scrap metal limited to waste code in table S2.2.
Storage and handling of solid wastes produced on site	Storage and handling of dross, slag, skimmings and other residues	From separation of wastes to export from installation
Off gas collection, abatement and discharge systems	Ducting, lime injection, carbon injection, magnesium silicate lined bag filter, internal burner system, localised extraction hoods and stack	From smelting/holding furnaces and dross cooling to exit point from stack
Aqueous effluent handling	Collection, treatment (via an Effluent Treatment Plant and a Reverse Osmosis System) and discharge of water softening effluent, ETP and RO reject water	From collection to treatment and discharge to sewer under a discharge consent

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application JP3335WG	Response to: Application Form B2; Questions 3b, 5a, b and c, 6 and all associated documents Application Form B3; Questions 3a, 3c, 4a, 4b, 6a, 6b, 6c, 6d and associated documents Technical standards in relation to Best available techniques as described in BAT Reference document GC/EIPPCB/NFM_Final Draft (via EPR 2.03 – Non-Ferrous Metals and the Production of Carbon and Graphite) under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for Non-ferrous Metals	Duly Made 02/06/15

Table S1.2 Operating techniques		
Description	Parts	Date Received
	Industries BAT Reference Numbers 56,80,83,84,85,88,89,90,91,92,93 & 94.	
Partial Response to Schedule 5 Notice dated 29/07/15	Submission of documents and information requested by all questions of the Schedule 5 Notice, with the exception of question 1(a)(i).	17/08/15
Full Response to Schedule 5 Notice dated 29/07/15	Submission of a response to question 1(a)(i) of the Schedule 5 Notice.	24/08/15
Response to Schedule 5 Notice dated 11/09/15	Submission of further requested, and clarification of, information required regarding the air quality impact assessment.	Received 21/09/15
Response to Schedule 5 Notice dated 21/09/15	Submission of revised air quality assessment (Revision 5). Response to email requesting clarification.	Received 02/11/15, 05/11/15
Response to Schedule 5 Notice dated 08/10/15	Submission of revised emission points plan and confirmation of solvents used on site.	Received 22/10/15

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall submit a written report to the Environment Agency on the implementation of its Environmental Management System and the progress made in the certification of the system by an external body or if appropriate submit a schedule by which the EMS will be certified.	12 months from the permit issue date
IC2	The operator shall submit an updated Site Condition Report to the Environment Agency for approval. The report must contain updated baseline soil and groundwater measurements for any areas of the site remediated within the installation boundary, as required under the conditions of the planning permission. The report must contain dates the remediation was completed and the monitoring was carried out. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission and acceptance of the report.	6 months following the completion of the land remediation

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
1	The smelting of scrap metal.	Prior to the acceptance on site of any scrap metal, the Operator shall submit a written fire prevention plan to the Environment Agency for approval. The plan shall demonstrate compliance with the latest environment agency fire prevention plan guidance
2	The use of a second smelting/holding furnace	Prior to the operation of a second smelting/holding furnace the operator shall submit a written revised 'Air Quality Assessment – Amtek, Kidderminster – Revision 5' report to the Environment Agency for approval.

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
		<p>The report must:</p> <ul style="list-style-type: none"> • be based on the monitoring results obtained from the currently installed furnace, for the emissions of NO_x and SO₂ to air, and; • include a risk assessment of the expected impacts, from both furnaces, to local receptors, and • include proposed further control measures where applicable. <p>The submitted report must contain dates for the implementation of individual measures.</p> <p>Any measures shall be implemented in accordance with the Environment Agency's written approval.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas Oil (Diesel)	<0.1% sulphur content

Table S2.2 Permitted waste types and quantities for melting to produce automotive castings	
Maximum quantity	Maximum treatment capacity of 40 tonnes per day. Maximum of 280 tonnes stored on site at any one time.
Waste code	Description
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 18	non-ferrous metal

Schedule 3 – Emissions and monitoring

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on Figure 6 in Schedule 7] Grid Ref: 382140, 273650	Abatement plant (including bag-plant and lime injection) serving furnaces, hoods from shot blasting and skimmings/slag cooling and handling system	Particulate matter	5 mg/Nm ³ [Note 1,2]	Monthly average	Continuous	BS EN 13284-2 [Note 3]
		Particulate matter	10 mg/Nm ³ [Note 4]	Maximum daily average	Continuous	BS EN 13284-1
		Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	10 mg/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year.	BS EN 14792
		Sulphur Dioxide (SO ₂)	20 mg/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year	BS EN 14791
		Hydrogen Chloride (HCl)	10 mg/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year	BS EN 1911 Parts 1, 2 and 3
		Fluorides (Gaseous, expressed as HF)	1 mg/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year	ISO 15713
		Carbon Monoxide (CO)	150 mg/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year	BS EN 15058
		Volatile Organic	50 mg/Nm ³	Extractive	Periodic	BS EN 12619

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

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
		Compounds (as Carbon)	[Note 4]	Sample. Not less than 30 minutes	Quarterly in first year. Then 3 tests per year	
		Dioxins / furans (I-TEQ)	0.1ng/Nm ³ [Note 4]	Extractive Sample. Not less than 30 minutes	Periodic Quarterly in first year. Then 3 tests per year	BS EN 1948 parts 1, 2 and 3

Note 1: not more than one calendar monthly average during any rolling twelve month period shall exceed the limit value by more than 10%

Note 2: not more than one half hour period during any rolling 24 hour period shall exceed the limit value by more than 50% (for the purpose of this limit, half hourly periods commence on the hour and the half hour)

Note 3: certification to the MCERTS performance standards indicates compliance with monitoring standards

Note 4: the mean of 3 consecutive tests taken during a calendar year shall not exceed the limit value by more than 10%

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

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
SW1 [Point SW1 on Figure 6 in Schedule 7]	Clean surface water yard run-off	No parameters set	-	-	-	-

Table S3.3 Point source emissions to sewer – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
W1 – W3 [Points W1 to W3 on Figure 6 in Schedule 7]	Reverse Osmosis treated Cooler water blowdown, to sewer under consent	Flowrate	-	Daily average	Continuous and integrated daily flowrate	BS EN 16749:2014
		pH	-	Daily average	Continuous	BS ISO 10523
		Temperature	-	Daily average	Continuous	BS EN 16749:2014
		COD/BOD	-	24 hour composite sample	Flow-weighted samples or composite samples, weekly analysis, reported as flow-weighted monthly averages	BS 6068-2.34 / BS EN 1899-2
		Turbidity	-	Daily average	Continuous	BS EN ISO 7027
		Metals which are likely to be released by the activity	-	24 hour composite sample	Flow-weighted samples or composite samples, weekly analysis, reported as flow-weighted monthly averages	BS 6068-2.29
W16 [Point W16 on Figure 6 in Schedule 7]	Process water treated by an Effluent Treatment Plant (ETP) (chemically induced flocculation and settlement, biological activated sludge treatment) then treated by	Flowrate	-	Daily average	Continuous and integrated daily flowrate	BS EN 16749:2014
		pH	-	Daily average	Continuous	BS ISO 10523
		Temperature	-	Daily average	Continuous	BS EN 16749:2014

Table S3.3 Point source emissions to sewer – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Reverse Osmosis, to sewer under consent	COD/BOD	-	24 hour composite sample	Flow-weighted samples or composite samples, weekly analysis, reported as flow-weighted monthly averages	BS 6068-2.34 / BS EN 1899-2
		Turbidity	-	Daily average	Continuous	BS EN ISO 7027
		Metals which are likely to be released by the activity	-	24 hour composite sample	Flow-weighted samples or composite samples, weekly analysis, reported as flow-weighted monthly averages	BS 6068-2.29

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1	Continuous monitoring- quarterly	1 January, 1 April, 1 July, 1 October
		Periodic Monitoring - Every 6 months	1 January, 1 July
Emissions to Sewer Parameters as required by condition 3.5.1	W1-W3 W16	Quarterly	1 January, 1 April, 1 July, 1 October

Table S4.2: Annual production/treatment	
Parameter	Units
Melting of aluminium to produce castings	Tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	Tonnes
Energy usage	Annually	MWh
Total amount of raw materials used	Annually	Tonnes

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	16/11/15
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	16/11/15
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	16/11/15
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	16/11/15
Performance	Form Performance1 or other form as agreed in writing by the Environment Agency	16/11/15

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	
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.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.
- “dioxin and furans” means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.
- “emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

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

“hazardous property” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“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.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

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

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

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

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

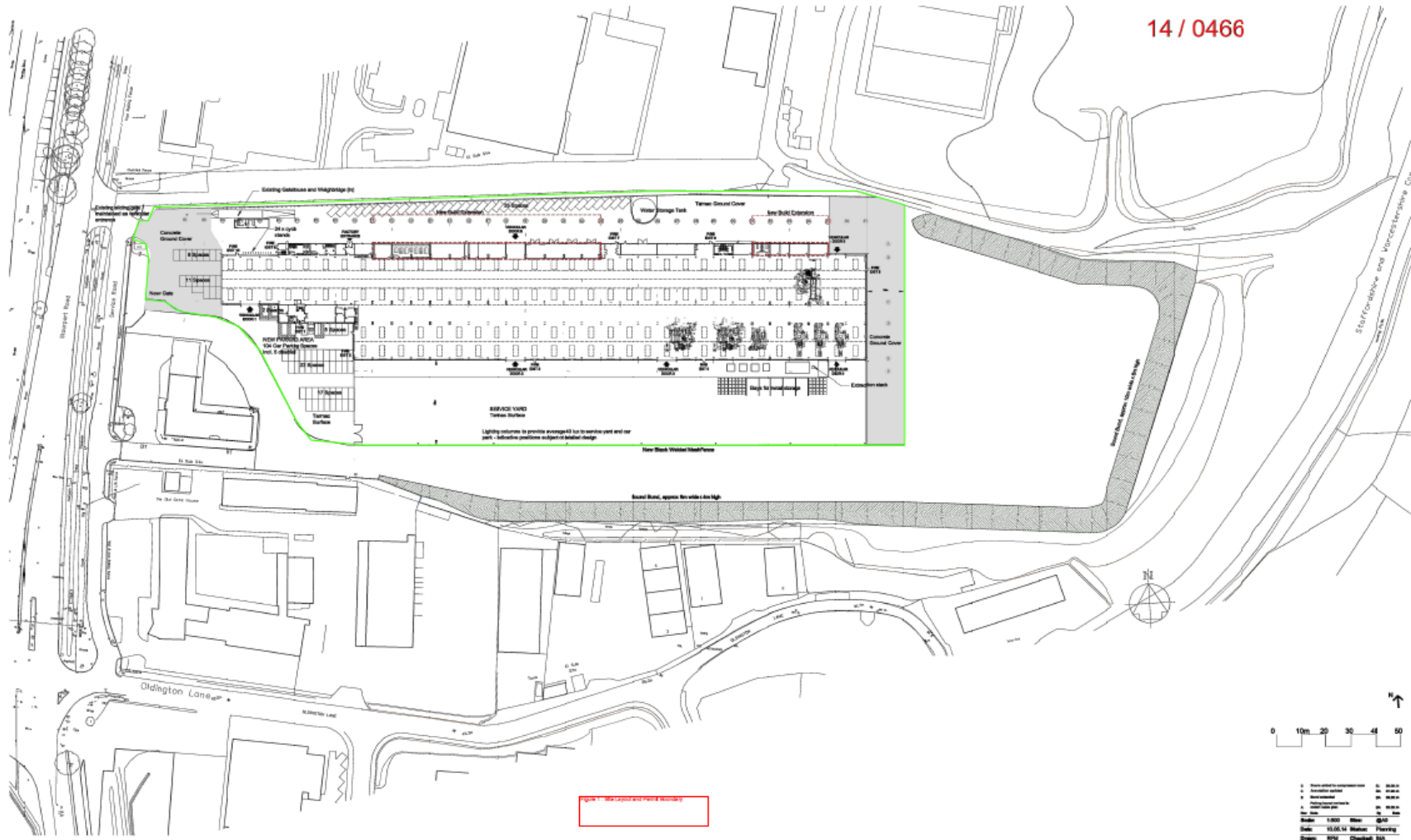
“year” means calendar year ending 31 December.

For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on: all congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum. However the minimum value should be used when assessing compliance with the emission limit value in table S3.1.

TEF schemes for dioxins and furans				
Congener	I-TEF	WHO-TEF		
	1990	2005	1997/8	
		Humans / Mammals	Fish	Birds
Dioxins				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0003	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0003	0.0001	0.0001

Schedule 7 – Site plan

14 / 0466

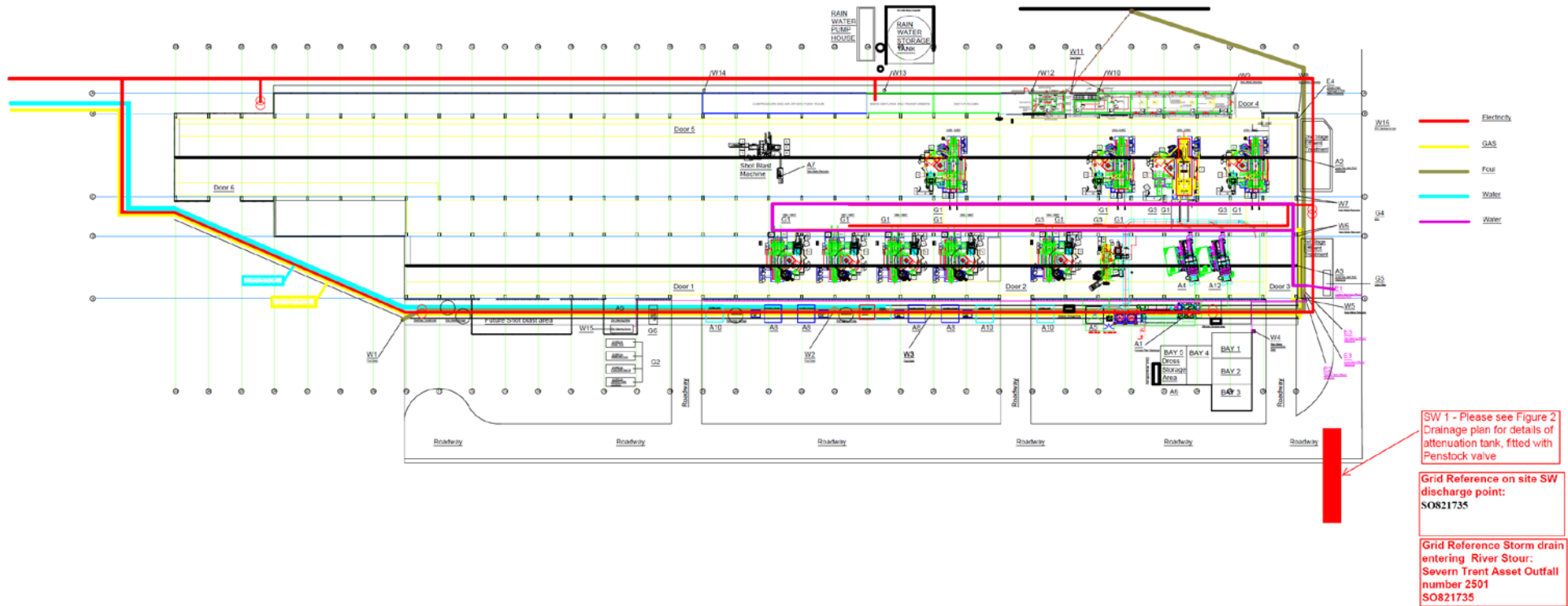


1	Demolition/Construction	10	10m
2	Asphalt	15	15m
3	Concrete	20	20m
4	Grass	25	25m
5	Gravel	30	30m
6	Water	35	35m
7	Electric	40	40m
8	Gas	45	45m
9	Other	50	50m

Project: The Plaza, Kilschmeider
 Client: Department of Local Government
 Date: 15.05.14
 Scale: 1:100
 Author: [Name]
 Checker: [Name]
 Title: CIVIL ENGINEER
 Registration: [Number]

Permit Boundary

Figure 6 – Emission Points



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END OF PERMIT

Permit Number: **EPR/JP3335WG**

Operator:

**Amtek Aluminium Castings (Witham)
Limited**

Facility: **Amtek Aluminium Castings (Witham)
Limited**

Form Number:

Air1 / 16/11/15

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]
A1	Particulate matter	5 mg/Nm ³	Monthly average		BS EN 13284-2 [Note 3]		
	Particulate matter	10 mg/Nm ³	Maximum daily average		BS EN 13284-1		
	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	10 mg/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 14792		
	Sulphur Dioxide (SO ₂)	20 mg/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 14791		
	Hydrogen Chloride (HCl)	10 mg/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 1911 Parts 1, 2 and 3		
	Fluorides (Gaseous, expressed as HF)	1 mg/Nm ³	Extractive Sample. Not less than 30 minutes		ISO 15713		
	Carbon Monoxide (CO)	150 mg/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 15058		
	Volatile Organic Compounds (as Carbon)	50 mg/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 12619		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	Dioxins / furans (I-TEQ)	0.1ng/Nm ³	Extractive Sample. Not less than 30 minutes		BS EN 1948 parts 1, 2 and 3		

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.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/JP3335WG

Operator:

Amtek Aluminium Castings (Witham) Limited

Facility: Amtek Aluminium Castings (Witham) Limited

Form Number:

Sewer1 / 16/11/15

Reporting of emissions to sewer 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]
W1	Flowrate	-	Daily average		BS EN 16749:2014		
	pH	-	Daily average		BS ISO 10523		
	Temperature	-	Daily average		BS EN 16749:2014		
	COD/BOD	-	24 hour composite sample		BS 6068-2.34 / BS EN 1899-2		
	Turbidity	-	Daily average		BS EN ISO 7027		
	Metals which are likely to be released by the activity	-	24 hour composite sample		BS 6068-2.29		
W2	Flowrate	-	Daily average		BS EN 16749:2014		
	pH	-	Daily average		BS ISO 10523		
	Temperature	-	Daily average		BS EN 16749:2014		
	COD/BOD	-	24 hour composite sample		BS 6068-2.34 / BS EN 1899-2		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	Turbidity	-	Daily average		BS EN ISO 7027		
	Metals which are likely to be released by the activity	-	24 hour composite sample		BS 6068-2.29		
W3	Flowrate	-	Daily average		BS EN 16749:2014		
	pH	-	Daily average		BS ISO 10523		
	Temperature	-	Daily average		BS EN 16749:2014		
	COD/BOD	-	24 hour composite sample		BS 6068-2.34 / BS EN 1899-2		
	Turbidity	-	Daily average		BS EN ISO 7027		
	Metals which are likely to be released by the activity	-	24 hour composite sample		BS 6068-2.29		
W16	Flowrate	-	Daily average		BS EN 16749:2014		
	pH	-	Daily average		BS ISO 10523		
	Temperature	-	Daily average		BS EN 16749:2014		
	COD/BOD	-	24 hour composite sample		BS 6068-2.34 / BS EN 1899-2		
	Turbidity	-	Daily average		BS EN ISO 7027		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	Metals which are likely to be released by the activity	-	24 hour composite sample		BS 6068-2.29		

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.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/JP3335WG

Operator: Amtek Aluminium Castings (Witham) Limited

Facility: Amtek Aluminium Castings (Witham) Limited

Form Number: WaterUsage1 / 16/11/15

Reporting of Water Usage for the year 20XX

Water Source	Usage (m³/year)	Specific Usage (m³/unit output)
Mains water		
Site borehole		
River abstraction		
TOTAL WATER USAGE		

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: EPR/JP3335WG

Operator: Amtek Aluminium Castings (Witham) Limited

Facility: Amtek Aluminium Castings (Witham) Limited

Form Number: Energy1 / 16/11/15

Reporting of Energy Usage for the year 20XX

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)

Permit Number: EPR/ JP3335WG

Operator: Amtek Aluminium Castings (Witham) Limited

**Facility: Amtek Aluminium Castings (Witham)
 Limited**

Form Number: Performance1 / 16/11/15

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
Total raw material used	tonnes

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)