



**POLLUTION PREVENTION AND CONTROL ACT 1999
ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS
2016, AS AMENDED**

Permit Number: 2.2/049995/MG3

Installation Address:

Brass Founders Sheffield
Gower Works
Gower Street
Sheffield
S4 7LJ

In accordance with Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2016, as amended, Europa Engineering Ltd trading as Brass Founders Sheffield is hereby permitted to operate a scheduled activity at the address detailed above, namely the melting, including making alloys, of non-ferrous metals as described in Schedule 1, Part 2, Chapter 2, Section 2.2, Part B, subsection (a) and subject to the following conditions of this Permit.

Signed

Dated this day: 18th September 2019

**Commercial Team Manager
Authorised by Sheffield City Council to sign on their behalf**

The following Secretary of States Guidance Notes has provided the framework for the conditions in this Permit:

PG 2/3(13) "Electrical Furnaces"

PG 2/4 (13) "Iron, Steel and Non Ferrous Metal Foundry Processes"

PG 2/08(13) "Copper and copper alloy installations"

PG2/16 (13) "Melting aluminium and its alloys"

Name & Address of Operator:

Brass Founders Sheffield
Gower Works
Carlisle Street
Sheffield
S4 7LJ

Contact: Paul Beckett, Tel: 0114 272 7557 paul.beckett@brassfounders.com

Address of Permitted Installation:

Gower Works
Carlisle Street
Sheffield
S4 7LJ

Registered Office Address:

Brass Founders Sheffield
Gower Works
Carlisle Street
Sheffield
S4 7LJ

Holding Company:

Europa Engineering Ltd
326-328 Coleford Road
Sheffield
South Yorkshire
S9 5PH

Talking to Us

Any communication with Sheffield City Council should be made to the following address quoting the Permit Number:

5th Floor (North)
Howden House
1 Union Street
Sheffield
S1 2SH

Tel: 0114 273 4651

Alternatively Email: epsadmin@sheffield.gov.uk

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Explanatory Note to Pollution Prevention and Control Permit for Part B Installations.

(This note does not form a part of the Permit)

The following Permit is issued under Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2016, as amended (“the EP Regulations”) to operate an installation carrying out activities covered by the description in Schedule 1, Part 2, Chapter 2, Section 2.2, Part B, subsection (a) of those Regulations.

- (a) Melting, including making alloys of, non-ferrous metals (other than tin or any alloy which in molten form contains 50 per cent or more by weight of tin), including recovered products (such as refining or foundry casting) in plant with a melting capacity of 4 tonnes or less per day for lead or cadmium or 20 tonnes or less per day for all other metals.

Process Changes

Under the provisions of the EP Regulations, you are required to notify the Council of any proposed change in operation at least 14 days before making the change. This must be in writing and must contain a full description of the proposed change in operation and the likely consequences. Failure to do so is an offence.

If you consider that a proposed change could result in the breach of the existing permit conditions or is likely to require the variation of permit conditions then you may apply in writing under Regulation 20(1) of the EP Regulations. Additionally, if this involves a SUBSTANTIAL CHANGE to the installation you will be required to submit an application, pay the relevant fee and advertise the application accordingly. You may serve a Notice on the Council requesting that they determine whether any change that is proposed would constitute a substantial change before you proceed with application.

Variations to the Permit

The Permit may be varied in the future by the Council serving a Variation Notice on the Operator. If the Operator wishes any of the Conditions of the Permit to be changed, a formal Application must be submitted.

Surrender of the Permit

Where the operator of a Part B installation or mobile plant ceases or intends to cease the operation of the activity the operator may notify the regulator of the surrender of the whole permit, in any other case, notify the regulator of the surrender of the permit in so far as it authorises the operation of the installation or mobile plant which he/she has ceased or intends to cease operating. The notification shall contain information as described in Regulation 24 or 25 of the EP Regulations.

Transfer of the Permit or Part of the Permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the EP Regulations. A transfer will be allowed unless Sheffield City Council considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Annual Subsistence Fee

In accordance with Regulation 66 of the EP Regulations, the holder of a permit is required to pay a fee for the subsistence of the Permit. This fee is payable annually on 1st April. You are advised that under the provisions of Regulation 66 (5) of the EP Regulations, if you fail to pay the fee due promptly, Sheffield City Council may revoke the Permit. You will be contacted separately each year in respect to this payment.

Public Register

The Council is required by Regulation 46 of the EP Regulations to maintain a Public Register containing information on all LAPPC installations and mobile plant. The register is available for inspection by the public free of charge during office hours (Monday to Friday 9.00 am to 5.00 pm) at the following address:

Environmental Protection Service
Sheffield City Council
5th Floor (North)
Howden House
1 Union Street
Sheffield
S1 2SH

Tel: 0114 273 4651 or email epsadmin@sheffield.gov.uk

Confidentiality

Sheffield City Council has a duty to consider the question of confidentiality of information supplied to it. If any information supplied is considered confidential, a statement of which information this applies to and the reasons why it is considered confidential should be specified. The Operator is reminded that he may apply to Sheffield City Council for the exclusion of information from the public register under the provisions of the Environmental Permitting (England and Wales) Regulations 2016.

Appeals

Under Regulation 31 of the EP Regulations operators have the right of appeal against the conditions attached to their permit. Schedule 6 of the EP Regulations sets out the detailed procedures.

Appeals against a Variation Notice do not have the effect of suspending the operation of the Notice. Appeals do not have the effect of suspending Permit conditions.

Notice of appeal against the conditions attached to the permit must be given within six months of the date of the Notice, which is the subject matter of the appeal.

How to Appeal

There are no forms or charges for appealing. However, for an appeal to be valid, appellants (the person/operator making the appeal) are legally required to provide:

- Written notice of the appeal;
- A statement of the grounds of appeal;
- A statement indicating whether the appellant wishes the appeal to be dealt with by written representations procedure or a hearing – a hearing must be held if either the appellant or enforcing authority requests this, or if the Planning Inspector or the Secretary of State decides to hold one.
- (Appellants must copy the above three items to the local authority when the appeal is made)
- A copy of any relevant application;
- A copy of any relevant permit;
- A copy of any relevant correspondence between the appellant and the regulator; and
- A copy of any decision or notice, which is the subject matter of the appeal.

Where to Send Your Appeal Documents

Appeals should be addressed to:

**The Planning Inspectorate
Environmental Appeals Administration
Room 4/19 – Eagle Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN**

In the course of an Appeal process the main parties will be informed of procedural steps by the Planning Inspectorate.

To withdraw an appeal the appellant must notify the Planning Inspectorate in writing and copy the notification to the local authority.

Enforcement

An **Enforcement Notice** may be served if the Local Authority believes an Operator has contravened, is contravening or is likely to contravene any condition of his Permit.

A **Suspension Notice** may be served if in the opinion of the Local Authority the operation of an installation involves an imminent risk of serious pollution. This applies whether or not the Operator has breached a Permit condition.

The Local Authority can revoke a Permit by written notice at any time by serving a **Revocation Notice**. The Permit then ceases to authorise the operation of the installation.

Offences

A limited summary of the offences is listed below:

- a) operation of an installation without a Permit
- b) failure to comply with or contravene a Permit condition
- c) failure to comply with the requirements of an enforcement or suspension notice

A full list is available under Regulation 38 of the Environmental Permitting (England & Wales) Regulations 2016, as amended.

Penalties

The maximum penalties for the above offences are a fine not exceeding £50,000 and/or up to twelve months imprisonment per offence for a summary conviction (in a Magistrates Court); and a fine and/or up to five years imprisonment for conviction on indictment (in a Crown Court).

Definitions

In relation to this Permit, the following expressions shall have the following meanings:

“Application” means the application for this Permit, together with any response to a notice served under Schedule 4 to the EPR Regulations and any operational change agreed under the conditions of this Permit.

“EPR Regulations” means the Environmental Permitting (England and Wales) Regulations 2016 and words and expressions defined in the EPR Regulations shall have the same meanings when used in this Permit save to the extent they are explicitly defined in this Permit.

“Permitted Installation” means the activities and the limits to those activities described in this Permit.

“Monitoring” includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

“Regulator” means any officer of Sheffield City Council who is authorised 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(1) of that Act.

“BAT” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the bases for emission limit values designed to prevent, and where that is not practical, generally to reduce emissions and the impact on the environment as a whole. For those purposes:

“available techniques” means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the Operator;

“best” means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole; *“techniques”* include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. Schedule 2 of the Regulations shall have effect in relation to the determination of best available techniques, and;

“Fugitive Emission” means an emission to air from the Permitted installation that is not controlled by an emission limit imposed by a condition of this Permit.

Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the document with the most recent publication date shall be taken to be the most appropriate document to be used.



Description of Activities

Brass Founders Sheffield operate as a non-ferrous foundry and specialist engineers, using copper base alloys, aluminium and white metal alloys for the supply and machining of castings to various industries with a maximum melting capacity of approximately 1.8 tonnes per day. The typical production for the site is approximately 5 tonnes per month. The factory is located at Carlisle St in an industrial area of Sheffield as indicated on the plan in Schedule 1 of this Permit.

The process consists of melting of copper, zinc, tin and aluminium ingots and scrap returns produced on site in Large Moulding, Aluminium Die Casting and Small Moulding areas. Sand moulds are prepared on site using a mixture of new sand and sand reclaimed from casting knock-out. Products are finished by fettling and grinding. These activities are described below, and are located as indicated on the layout shown in Schedule 2 of this Permit.

Melting

This area comprises 2 x Electric Rayne Induction Furnaces having a capacity of 1 x 350 kg and 1 x 750 kg. These are powered by 1 power pack. The fumes from the melting process are not extracted to atmosphere but are fugitive within the foundry.

Molten metal is cast into silica sand moulds.

Shell Moulding

The shell moulding process consists of the 5 following steps:

1. Pattern Creation

A two piece metal pattern is created (by a supplier off site) in the shape of the desired part, typically made from iron or steel.

2. Mould Creation

First, each pattern half is heated to 175-370 degrees centigrade.

It is then coated with a Silicone Emulsion release agent PF806D to facilitate shell removal (later in the process).

Next the heated pattern is clamped to a dump box which contains the GM 80 resin coated sand. The dump box is inverted allowing the resin coated sand to coat the pattern. The heated pattern partially cures the mixture which now forms a shell around the pattern. Each patterns half and surrounding shell is cured to completion under a gas flame hood. After removal of the hood the shell is ejected vertically from the metal pattern by use of strategically placed ejector pins incorporated into the metal pattern plate.

3. ***Mould Assembly***

The two half shells that have been made are joined together by the application of shell glue (specifically formulated to be used on hot surfaces) to the joint surfaces of the shells. The two halves now glued together are then clamped for sufficient time for the adhesive to take effect in completing the joint sealing process.

4. ***Storing & casting***

Once assembled and sealed the shells can be placed in storage or cast immediately. The casting operation is carried out on a casting carousel which allows the fume and products of combustion to be under the casting hood and then exhausted to the external air without abatement through a horizontal stack into the courtyard at location Emission Point 01 as detailed in Schedule 2.

5. ***Cooling***

Once cast, the shells are left to cool under the hooded area until cool enough to be handled manually.

The breaking up of the moulds follow the same methods as used in other areas of the foundry, i.e. they are taken to the 'Knock out area' where the waste sand is collected and the castings are removed ready to be fettled to a finished standard.

Casting fumes and emissions from the shell moulding station and casting carousel are extracted to atmosphere via and discharge via a horizontal duct located within an internal court yard of the foundry building.

Aluminium Die Casting Shop

This area comprises 1 x gas fired furnace with a capacity of 350 kg and 2 x aluminium electric furnaces having a capacity of 250 kg each. Products of combustion only, not melting fume, from the gas fired furnace are extracted directly to atmosphere via ducting.

Molten metal is cast into cast iron die moulds and dressed with a releasing agent.

Casting and melting fumes are not extracted to atmosphere but are fugitive within the foundry area.

Small Side

This area comprises 2 x Radyne twin pop up (one on-one off) electric induction furnace having a capacity of 120kg and 150kg. Molten metal is cast into green sand moulds manufactured by hand mixing inside moulding boxes, or air set sand moulds manufactured using silica sand and alphaset resins. The moulds are dressed with isopropanol based coatings. Casting and melting fumes from this area are not extracted to atmosphere but are fugitive within the foundry area.

Sand Reclaim

Reclamation of silica sand from both the large and small foundry sides takes place in an Omega sand reclaimer plant with the extraction of emissions to a bag filter that exhausts internally. There are no direct emissions to atmosphere from this plant.

Reclaimed sand is mixed with new sand. New sand is delivered to a silo which is fitted with a pulse jet bag filter exhausting to atmosphere.

Fettling Shop

Castings are shotblasted in a Pangborn shot blasting machine. Particulate matter emissions from this plant are extracted to a dry bag filter that exhausts internally. There are no direct emissions to atmosphere from this plant.

Castings are fettled in a fettling booth. Particulate matter emissions from this plant are extracted to a dry bag filter that discharges to internal atmosphere. There are no direct emissions to atmosphere from this plant.

Castings are finished using large and small static radiacs and a double pedestal grinder. Particulate matter emissions from this plant are extracted to a wet arrestor that exhausts through secondary filters internally within the foundry. There are no direct emissions to atmosphere from this plant.

There is also a Wheelabrator shot blast unit however there are no direct emissions to atmosphere from this plant.

The description of activities includes all ancillary operations such as the storage of raw materials in three sand hoppers located externally on the roof, the storage and handling of wastes and the disposal of final products.

Control of Emissions

The majority of emissions from the foundry activities are directed to internal venting abatement plant. The capacity and throughput of the foundry is small at a maximum of 1.8 tonnes per day. Any fume produced from the metal pouring is contained within the process building. There is only one direct emission point to atmosphere from the foundry which serves the shell moulding machine and small casting carousel (emission point 01 on site schematic –schedule 2). The casting carousel is used approximately 4-6 times a week and the castings operation lasts for 15-20 minutes. The extract is not run when the carousel casting process is not operating.

The following conditions shall be complied with immediately unless otherwise stated.

Section 1 – Overarching Management Conditions

- 1.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.
- 1.2 The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation, which is not regulated by any other condition of this Permit.
- 1.3 The activities shall be carried out within the installation boundary indicated by shading on the plan (Schedule 1) to this Permit.
- 1.4 Permitted activities shall only be carried on using the plant and equipment as detailed in the Description of Activities and on the Installation Layout reproduced in Schedule 1 of this Permit.
- 1.5 The Operator shall notify the Regulator of any proposed operational changes including any alterations to the process involving the provision of new plant or equipment which may affect emissions or have consequences for the environment. The information shall be submitted at least 14 days before the changes take place.
- 1.6 No plant or equipment used for any activity shall be operated with an extraction point to atmosphere unless specifically noted within this Permit or specifically agreed in writing with the Regulator.

Section 2 – Upgrading

- 2.1 No Upgrading is required at the time and date of issue of this permit. Should production increase, emissions increase or change then this shall be reviewed by the regulator in conjunction with the process operator.

Section 3 – Production Capacity

- 3.1 The installation shall have a melting capacity of less than twenty tonnes per day.
- 3.2 The Operator shall maintain a record of daily melt quantities. The record shall detail, in weight, the quantity of ingots and scrap used/melted each day in the

process. The record shall be kept in a log book on site in accordance with condition 5.4 and be available for inspection by the regulator.

Section 4 – Emission Limits and Controls

- 4.1 All emissions to air arising in normal operating conditions, including charging and pouring, shall be free from persistent visible emissions, fume, particulate and droplets, excluding condensed water vapour.
- 4.2 There shall be no burning of materials, including waste, in the open air, inside buildings or in any form of incinerator in connection with the activities within the installation boundary, without permission in writing from the Regulator.
- 4.3 All emissions to air, including fugitive emissions from the installation, shall be free from offensive odour as perceived by the regulator outside the installation. The installation boundary is shown in green on Schedule 1.
- 4.4 The use of odour masking agents and / or counteractants shall not be permitted.
- 4.5 Emissions of fume from the electric melting furnaces shall be kept to a minimum by using only clean scrap or reworked material from previous castings produced at the installation which are not contaminated.
- 4.6 The process shall avoid the addition of fluxes to furnaces where possible. If fluxes have to be used they should be low fuming fluxes and receive prior approval in writing by the Regulator.
- 4.7 The operator shall ensure that the metal is melted in such a way to adequately prevent excessive fuming during pouring.
- 4.8 The bag filters serving the sand reclamation unit shall be fitted with a pressure drop indicator and audible and visual alarm to warn of arrestment equipment failure. The pressure drop indicators shall be checked daily, the results of these checks shall be recorded in the log book or recording system kept in accordance with condition 5.4.
- 4.9 All grinding, fettling, finishing, shot blasting and any other casting finishing processes shall be carried out within ventilated booths that are connected to suitable dust arrestment plant. The plant shall be of the self-contained pulse air jet type fitted with at least a pressure drop indicator such as magnehelic gauge.
- 4.10 The pressure drop gauge shall be checked daily to ensure that the bag filter unit is operating correctly. All filter units shall be subject to a scheduled maintenance programme with records available to the regulator to view on demand.
- 4.11 The wet arrestor serving the large and small static radiacs and double pedestal grinder shall be inspected on a daily basis to ensure that the water recirculation system is satisfactorily operating, that enough water is present in

the main reservoir and that there are no leaks from the unit. The wet arrestor shall be cleaned regularly to remove the captured particulate materials.

- 4.12 All emissions from the knockout machine and foundry sand reclamation processes shall be contained, captured and vented to suitable arrestment plant, and the emissions are directed back internally into the work place.
- 4.13 The emission of organic solvents from the use of die and mould dressing material shall be minimised, for example through the use of water-borne die lubricants and low solvent mould and core coatings. Emissions from the use of propanol based mould and core coatings shall be minimised by igniting as soon as safely possible after coating.
- 4.14 All containers used for carrying or storing the mould dressing materials shall be kept lidded when not in use.
- 4.15 The use of resins, hardeners and catalysts shall be consistent with the correct functioning of the binder system as directed by the supplier, in order to minimise use of the materials and reduce emissions.
- 4.16 Emission point 01 located on Schedule 2 site schematic shall comply with the following emission limits;

Emission	Concentration
Total particulate matter	20 mg/m ³ (for emission points with a flow rate greater than 150m ³ /hour)
VOC	30mg/m ³
Amines	5ppm v/v
Nickel	5mg/m ³
Cadmium and Chromium and their compounds	1mg/m ³
Lead	2mg/m ³
Copper	5mg/m ³
Tin	5mg/m ³

- 4.17 Emissions from the shell moulding machine and small casting carousel shall discharge to atmosphere via the existing horizontal extract point 01 as shown on site schematic Schedule 2. Should production increase and the use of the casting carousel and shell moulding machine increase as a result, the future suitability of a horizontal discharge point shall be reviewed by the regulator

Section 5 – Monitoring, Sampling and Measurement of Emissions

- 5.1 The Operator shall ensure that a visual assessment of fugitive fume and dust emissions from the building housing the melting process is carried out at least once a day when molten metal is being cast. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in the log book or recording system kept in accordance with condition 5.4.

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- 5.2 The Operator shall ensure that a visual assessment of emissions from the emission point serving the casting carousel and shell moulding station is carried out at least once a day when these areas of the activity are in use. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in the log book or recording system kept in accordance with condition 5.4.
- 5.3 The Operator shall ensure that adverse results observed from the assessments carried out in accordance with conditions 5.1 and 5.2 are investigated immediately to identify the cause of the emission and ensure that appropriate corrective action is taken. The corrective action taken shall be recorded in the log book or recording system kept in accordance with Condition 5.4.
- 5.4 The Operator shall ensure that a log book or recording system containing the details and results of all visual assessments and records of all inspections and observations made in accordance with permit conditions is kept. These records shall include the time and date of inspection, the nature, colour, persistency and intensity of any emission and the name of the person carrying out the assessment. The log book shall be kept on the premises and made available for inspection by the Regulator on demand. Such records shall be kept for a minimum of two years.
- 5.5 In any case of abnormal or adverse emissions the Operator shall:
- Identify the cause of the emissions and take corrective action immediately;
 - Adjust the process or activity to minimise the emissions;
 - Record details of the incident describing the nature and extent of the problems and the remedial actions taken in the log book.
- 5.6 The Operator shall inform the Regulator within one day in cases where:
- An emission is likely to have an effect on neighbouring premises; or
 - There is a failure of any arrestment plant or significant malfunction of foundry equipment

The report to the Regulator shall include:

- The date and time of the incident;
 - The cause and nature of the incident;
 - Details of any abnormal emissions;
 - Remedial action taken.
- 5.7 The operator shall undertake annual extractive emissions testing for emission point 01, as shown in schedule 2 of this permit, to determine compliance to the pollutant concentrations listed in condition 4.16 of this permit.

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- 5.8 In the reporting of monitoring results, all pollutant concentrations shall be expressed at reference conditions 273k, 101.3kPa, the oxygen and water references shall be that which corresponds to the normal operating conditions in the process.
- 5.9 The introduction of dilution air into duct systems in order to comply with emission limits shall not be permitted.
- 5.10 Emissions of total particulate matter from emission point stacks with an airflow of 150m³/min or more shall not exceed 20mg/m³, unless otherwise notified by the Regulator.
- 5.11 Emissions shall be tested at least once in every twelve month period unless otherwise agreed in writing with Sheffield City Council's Environmental Protection Service.
- 5.12 Within 4 weeks of the date of issue of this Permit, the Operator shall submit a stack emissions monitoring programme to the Regulator for approval in writing. The programme shall provide a complete list of emissions points from the installation, with capacity volume airflows detailed in m³/min, the proposed pollutants to be tested and the proposed frequency of testing.
- 5.13 At least 7 days prior to any non-continuous monitoring being carried out, the Operator shall ensure that site specific monitoring protocols are submitted to the Regulator for approval. The monitoring protocols shall include the proposed date and time of the testing, the method to be used and the pollutants to be monitored.
- 5.14 The results of annual non-continuous monitoring tests shall be forwarded to the Regulator within 8 weeks of completion of the testing.
- 5.15 The Operator shall ensure that adequate facilities for sampling are provided on vents or ducts. Sampling points on new plant shall be designed to comply with the British or equivalent standards.
- 5.16 Monitoring shall be carried out in accordance with methods described in M1 "Sampling requirements for monitoring stack emissions to air from industrial installations and M2 "Monitoring of stack emissions to air published by the Environment Agency, or by another method agreed in writing by the Regulator.

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- 5.17 Where the results of any non-continuous monitoring are adverse, the Operator shall investigate the matter as soon as possible. The investigation shall include the following steps:
- Close down the process or plant responsible for the breach;
 - Identify the cause of the breach;
 - Carry out any necessary works or repairs to ensure compliance with the emission concentration limit;
 - Re-test the plant to check compliance with the emission concentration limit specified as soon as possible;
 - Submit the re-test emissions monitoring report to the Regulator within 7 days of receipt of the results;
 - Record details of investigation and outcomes in the log book or recording system.
- 5.18 Where the results of any non-continuous monitoring exceed the emission concentration limit, the Operator shall inform the Regulator no later than 10:00 hours the following working day after receipt of the results of the emissions testing.

Section 6 – Raw material delivery, storage and waste handling

- 6.1 During the delivery of fresh sand to the sand silo, displaced air shall either be vented to bag filters, or back vented to the delivery tanker, in order to minimise emissions. Care shall be taken to ensure that the transfer lines are securely connected to the tanker discharge point and the silo delivery inlet point, and the arrestment plant shall be of sufficient size and kept clean to avoid pressurisation during delivery.
- 6.2 The sand silo shall be fitted with audible and visual high level alarms, which shall be visible/audible to the delivery driver to warn of overfilling. The functioning of these alarms shall be checked prior to each delivery and replaced/repairs as necessary and before another delivery takes place. The details of the inspection and any replacements/repairs shall be recorded in the logbook or recording system described in condition 5.4.
- 6.3 During the delivery of sand to the installation a competent member of the foundry staff shall make a visual assessment of emissions from the sand silos, bag filters and delivery pipes for a period of at least the first and last five minutes of the bulk delivery. Any adverse emissions observed by staff shall cause them to immediately cease the delivery and investigate and rectify the problem before the delivery recommences. The results of these visual assessments and the start and finish time of deliveries shall be recorded in the log book kept in accordance with condition 5.4.

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- 6.4 In order that fugitive emissions are minimised during the charging of the silo, care shall be taken during delivery from tankers to avoid venting of air to the silo at a rate which is likely to result in over-pressurisation of the silo. Particular problems may arise during the release of air from the tankers at the end of deliveries and care shall therefore also be taken to avoid over-pressurisation of silos when venting air from tankers at this stage. This can be alleviated by the use of tankers with sufficient valve-work to allow a gradual release to occur and by carefully controlled venting.
 - 6.5 IBC's or drums containing resin and isopropanol shall be stored in a bunded covered area.
 - 6.6 Incoming scrap metal shall be clean (i.e. free from significant amounts of contamination such as dirt, foreign material, oily residues, paint or other organic materials) and a system shall be employed which ensures that only clean scrap is melted.
 - 6.7 All waste storage areas shall be clearly marked and signed including containers, which shall be clearly labelled.
 - 6.8 All waste liquids shall be stored in lidded or sealed containers and sited on an impervious base surrounded by an impervious bund.
 - 6.9 Stocks of dusty, or potentially dusty materials, including waste sand shall be stored in enclosed areas of the site, or under cover.
 - 6.10 The Operator shall ensure that any spillage of particulate materials is cleaned up immediately by a wet method or vacuum cleaning in order to minimise particulate matter emissions to air. Dry sweeping is not permitted where it may result in the generation of airborne particulate matter to air outside any building.
 - 6.11 Particulate matter collected from the filters serving arrestment plant shall be collected into heavy duty bags or containers which shall be sealed before being deposited in the waste skip.

Section 7 - General Operations

- 7.1 Effective preventive maintenance shall be employed on all plant and equipment concerned with the control of emissions to the air. Filter systems fitted to storage silos shall be serviced every six months.
- 7.2 Essential spares and consumables (especially those subject to continual wear) such as filters shall either be held on site or available in 24 hours from suppliers in order to rectify any breakdowns and ensure the effective and efficient operation of the spraying process.
- 7.3 All spillages shall be dealt with immediately.

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- 7.4 External surfaces of the process building, ancillary plant and open yards and storage areas shall be inspected every 6 months and cleaned if necessary to prevent the accumulation of dusty material. Particular attention shall be paid to roofs, guttering, roadways, external storage areas and yards. Cleaning operations shall be carried out by methods which minimise emissions of particulate matter to air and dry sweeping of dusty deposits is not permitted.
- 7.5 Stacks and associated ductwork shall be inspected at least once every 6 months, and where the inspection reveals it necessary, the stacks and ductwork shall be cleaned. The inspection and any remedial action shall be recorded in the logbook.
- 7.6 The Installation shall be supervised by suitably trained personnel that are fully conversant with the requirements of this Permit.
- 7.7 Appropriate staff shall receive formal training and instruction in their duties relating to control of the activity and emissions to air. The training shall include:-
- Awareness of responsibilities under the Environmental Permit;
 - Minimising emissions on start-up and shut-down; and
 - Minimising emissions during abnormal conditions;
 - Minimising emissions from the storage and handling of products used in the process.
- 7.8 The Operator shall maintain training records of the skills and training requirements for all staff whose tasks in relation to the Installation may have an impact on the environment and shall keep records of all relevant training.
- 7.9 The process shall operate and adhere to the provisions of an appropriate Environmental Management System such as a site specific type or ISO 14001.
- 7.10 A competent person shall be nominated to act on behalf of the company, who will be responsible for ensuring that tests, emissions monitoring and maintenance measures required under this Permit are carried out. The responsible person shall be named in the logbook.
- 7.11 Complete and immediate access to the premises shall be granted to the Regulator upon request.
- 7.12 The Operator shall give written notification to the Regulator in the following instances:
- a) Permanent cessation of the operation of any part of, or all of the Permitted Installation;
 - b) Cessation of the operation of any part of, or all of the Permitted Installation for a period, likely to exceed 1 year;
 - c) Any proposed change in the operation of the installation; and
 - d) Resumption of the operation of any part of, or all of the Permitted Installation after a cessation notified under (b) above.

7.13 The Operator shall notify the following matters to the Regulator in writing, within 14 days of their occurrence:

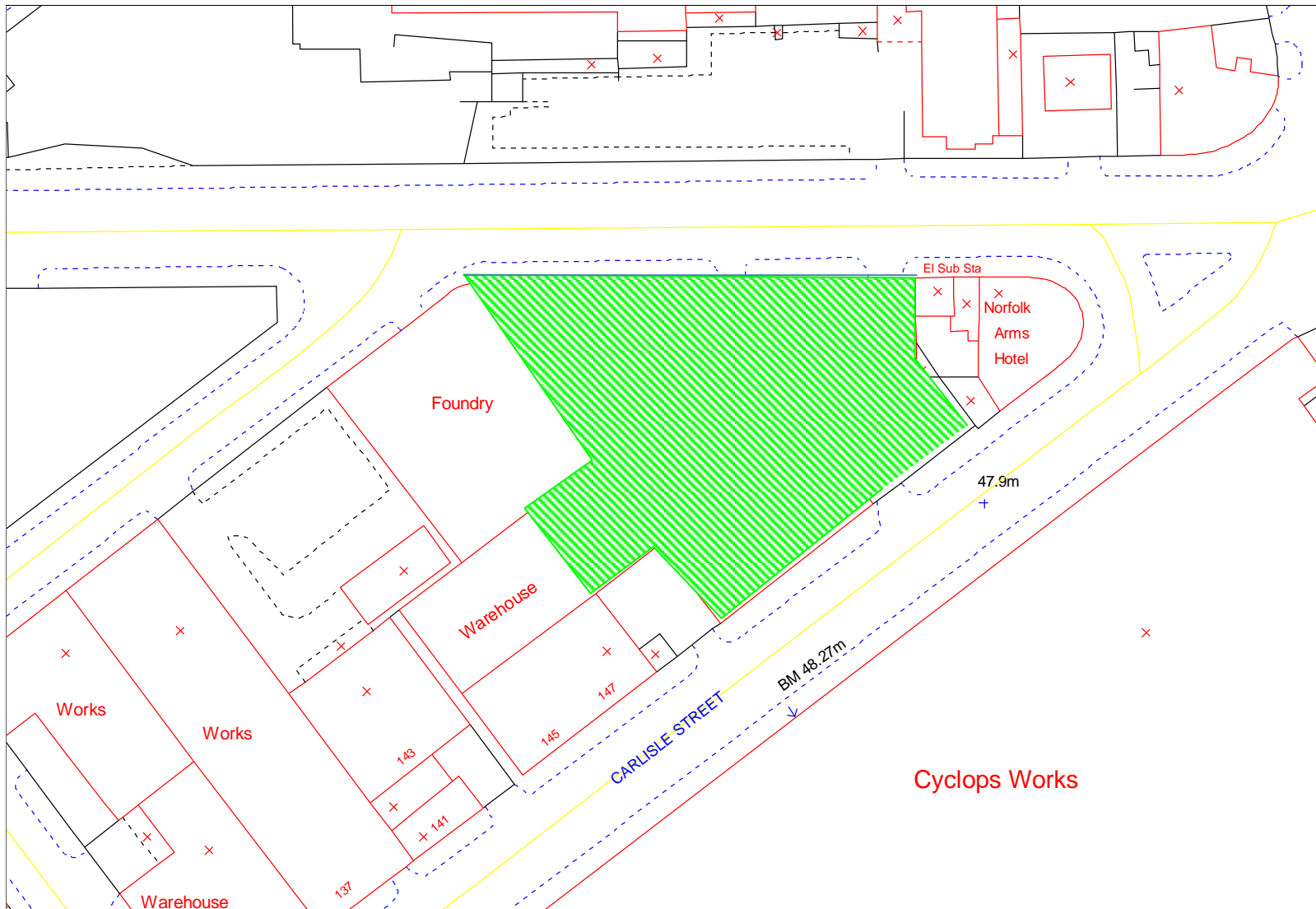
- a) Any change in the trading name of Brass Founders Sheffield registered name or registered office address;
- b) A change to any particulars of any ultimate holding company of Brass Founders Sheffield, including details of an ultimate holding company where Brass Founders Sheffield has become a subsidiary;
- c) Any steps taken with a view to Brass Founders Sheffield going into administration, entering into a company voluntary arrangement or being wound up.

All reports and notifications required by this Permit, or under any Regulation under the Environmental Permitting Regulations 2016, as amended, shall be sent to Sheffield City Council's Environmental Protection Service. Unless notified in writing, all reports, notifications and communications in respect of this Permit shall be sent to:

**Sheffield City Council,
Environmental Protection Service
5th Floor (North)
Howden House
1 Union Street
Sheffield
S1 2SH**

7.16 A copy of this Permit shall be kept on the premises.

Schedule 1 – Installation Location and Boundary (foundry shown in green)



Schedule 2 – Installation Layout

