



**POLLUTION PREVENTION AND CONTROL ACT 1999
POLLUTION PREVENTION AND CONTROL REGULATIONS 2000**

Permit Number: 2.1/048445/JT

**Installation Address:
Durham Foundry (Sheffield) Limited
Harleston Street
Sheffield
S4 7QB**

In accordance with Regulation 10 of the Pollution Prevention and Control Regulations (England and Wales) 2000 as amended. Durham Foundry (Sheffield) Limited is hereby permitted to operate a scheduled activity at the address detailed above, namely the production and processing of metals as described in Schedule 1, Part 1, Chapter 2, Section 2.1, Part B, subsection (b)(ii) and subject to the following conditions of Permit.

Signed

Dated 3 October 2006

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

The Secretary of States Guidance PG 2/3 and 2/4 have provided the framework for the conditions in this Permit.

Name & Address of Operator:

Durham Foundry (Sheffield) Limited
Harleston Street
Sheffield
S4 7QB

Contact Name: Mike Naylor
Contact Telephone: 0114 2494977

Registered Office:

Durham Foundry (Sheffield) Limited
Harleston Street
Sheffield
S4 7QB

Address of Permitted Installation:

Durham Foundry (Sheffield) Limited
Harleston Street
Sheffield
S4 7QB

Talking to Us

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

**ENVIRONMENTAL PROTECTION SERVICE
SHEFFIELD CITY COUNCIL
2-10 CARBROOK HALL ROAD
CARBROOK
SHEFFIELD
S9 2DB**

Tel: 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 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I. 2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Part 1, Chapter 2, Section 2.3, Part B, subsection (a) of Schedule 1 of those Regulations, to the extent authorised by the Permit:

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation as defined in Regulation 3(1) of the PPC Regulations.

Process Changes

Under the provisions of Regulation 16 of the PPC 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 17(2) of the PPC 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 itself wants 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 20 (3) of the PPC 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 18 of the PPC 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 22(2)(c) of the PPC 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 21 of the PPC 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 29 of the PPC 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
2-10 Carbrook Hall Road
Carbrook
Sheffield
S9 2DB**

Tel: 273 4651

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 s/he may apply to Sheffield City Council for the exclusion of information from the public register under the provisions of the Pollution Prevention and Control Regulations (England and Wales) 2000 as amended.

Appeals

Under Regulation 27(1)(c) of the PPC Regulations operators have the right of appeal against the conditions attached to their permit. Schedule 8 of the PPC 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.

DESCRIPTION OF ACTIVITIES.

The activities carried out at the site include the following;

The manufacture of sand moulds and mould dressing with IPS1 solvent.

Furnace treatment including de-sulphurisation with MgFeSi.

The melting of iron and ferro alloys in a high frequency Inductotherm Electric Induction Furnace with a capacity of 500 kg and a high frequency Inductotherm Electric Induction Furnace with a capacity of 750 kg.

The casting of molten metal into sand moulds made with alkaline phenolic resins and hardeners.

Casting knock-out.

Phenolic reclamation of sand using an OMEGA Gammavator with IFS dust extraction vented externally, waste sand being pneumatically blown into a 30 tonne silo.

Fettling of castings using hard grinders and pedestal grinders vented to a Torit extractor vented externally, and the shotblasting of castings, the particulate matter emissions from which are vented to an Airmaster extraction unit which is vented externally.

This Permit also refers to the storage of raw materials, the storage and handling of wastes and the dispatch of final products.

These activities are carried out within the installation boundary marked in red on the attached plan reference 2.1/022790/JT.

1.0 Plant & Equipment

- 1.1 Permitted activities shall only be carried on using the plant and equipment as detailed in the installation description and on the Process Layout reproduced in Schedule 2 of this Permit.

2.0 Production Capacity

- 2.1 The installation shall produce less than twenty tonnes per day of finished product.
- 2.2 The Permit holder shall maintain a record of production to demonstrate compliance with condition 2.1 of the Permit. The record shall include the total weight of castings and the total weight of finished product in tonnes. The record shall be kept in a log book on site in accordance with condition 4.7 and be available for inspection by officers of Sheffield City Council's Environmental Protection Service at least once in every six month period, the first record shall be submitted by 30th December 2006.

3.0 Emissions Limits and Controls

- 3.1 All emissions to air, other than steam or condensed water vapour shall be free from droplets and from persistent mist and persistent fume.
- 3.2 Emissions to air shall be free of offensive odour beyond the premises boundary as perceived by an Authorised Officer from Sheffield City Council Environmental Protection Service.
- 3.3 All emissions to air arising in normal operating conditions, including charging and pouring, shall be free from persistent visible emissions and droplets, excluding condensed water vapour.
- 3.4 In the keeping of all records, all pollutant concentrations shall be expressed at reference conditions, 273K, 101.3kPa, 11% oxygen and dry gas.
- 3.5 There shall be no burning in the open air in connection with the activities within the installation boundary.

- 3.6 The following emission concentration limits shall apply to the IFS dust extraction unit serving the sand reclamation unit, Torit extraction unit serving the grinder machines and the Airmaster extraction unit serving the shotblasting machines:

Emission	Concentration
Total particulate matter	20 mg/m ³

- 3.7 The Airmaster arrestment equipment serving the shotblast equipment shall be fitted with a pressure drop indicator and visual alarm, to warn of arrestment equipment failure. The pressure drop indicator and alarm shall be checked daily, the results of the check shall be recorded in the log book kept in accordance with condition 4.7.
- 3.8 The IFS 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 kept in accordance with condition 4.7.
- 3.9 The Torit extraction unit serving the fettling shop grinders shall be fitted with a pressure drop indicator and visual alarm, to warn of arrestment equipment failure. This device shall be checked on a daily basis, the results of this check being recorded in the log book kept in accordance with condition 4.7.

4.0 Monitoring, Sampling and Measurement of Emissions

- 4.1 The Permit holder 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 kept in accordance with condition 4.7.
- 4.2 The Permit holder shall ensure that a visual assessment of the emissions from the stack serving the fettling machine extraction is carried out at least once a day when fettling is occurring. The observation shall be from a location in Forncett Street to ensure the chimney is visible. Details of the observations shall be recorded in the log book kept in accordance with condition 4.7.

- 4.3 The Permit holder shall ensure that a visual assessment of the emissions from the chimney serving the table shot blast booth is carried out at least once a day when blasting is occurring. The duration of the assessment shall be for a minimum of one minute. Details of the observations shall be recorded in the log book kept in accordance with condition 4.7 of this Permit.
- 4.4 The Permit holder shall ensure that a visual assessment of the emissions from the stack serving the sand reclamation unit is carried out at least once a day when sand reclamation is occurring. The duration of the assessment shall be for a minimum of one minute. Details of the observation shall be recorded in the log book kept in accordance with condition 4.7 of this Permit.
- 4.5 The Permit holder shall ensure that a visual inspection of arrestment plant serving the shot blast machines, sand reclamation unit, fettling machines and associated ductwork is carried out at least once in every 2 month period under normal operating conditions for any signs of wear, tear or damage to ensure sound operation. Any damage shall be repaired as soon as possible and all inspections including any remedial action taken shall be recorded in the log book kept in accordance with condition 4.7 of this Permit.
- 4.6 The Permit holder shall ensure that adverse results from the assessments carried out in accordance with conditions 4.1 to 4.5 are investigated immediately to identify the cause of the emission and allow the appropriate corrective action to be taken. The corrective action taken shall be recorded in the log book kept in accordance with Condition 4.7 of this Permit.
- 4.7 The Permit holder shall ensure that a log book containing the details and results of all visual assessments and records of all inspections and observations made in accordance with conditions 2.2, 3.7 to 3.9, 4.1 to 4.6, 5.1, 6.8 and 7.1 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 authorised officers of Sheffield City Council's Environmental Protection Service. Such records shall be kept for a minimum of two years and shall be furnished in writing to Sheffield City Council on demand.
- 4.8 Emissions of total particulate matter from the exhausts of the Torit arrestment and Airmaster arrestment shall be tested at least once in every two year period to demonstrate compliance with condition 3.6 of this Permit. The next monitoring is required to have been completed by 30th October 2006.

- 4.9 Emissions of total particulate matter from the exhaust of the IFS bag filters serving the sand reclamation unit shall be tested at least once in every twelve month period to demonstrate compliance with the emission limit laid down in condition 3.6 of this Permit. The next monitoring is required to have been completed by 30th October 2006.
- 4.10 The Permit holder shall give at least 7 days written notice to Sheffield City Council of the provisional date on which it is intended to carry out non-continuous monitoring or sampling of emissions to air. The written notice shall include details of the pollutants to be monitored, sampling techniques to be employed, the date of the proposed monitoring and vents intended to be tested.
- 4.11 The results of all non-continuous emissions testing shall be forwarded to Sheffield City Council within eight weeks of the completion of the sampling.
- 4.12 Monitoring shall be carried out in accordance with methods described in M1 "Sampling requirements for monitoring stack emissions to air from industrial installations"¹ and M2 "Monitoring of stack emissions to air"², or by another method agreed in writing by Sheffield City Council's Environmental Protection Service.
- 4.13 Non-continuous emissions monitoring of particulate matter shall be carried out in accordance with the main procedural requirements of BS ISO12141:2002 or BS EN 13284:Part 1 with averages taken over operating periods excluding start up and shut down. Sampling equipment should be capable of collecting particulate matter of 0.1 microns diameter or less, with an efficiency of at least 75%.
- 4.14 Where the results of any non-continuous monitoring demonstrate a breach of the emission concentration limit, the Permit holder 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 demonstrate compliance with the emission concentration limit specified;
 - Submit the emissions monitoring report to Sheffield City Council's Environmental Protection Service within 7 days of receipt of the results;
 - Record details of investigation and outcomes in the log book.

¹ BSI, ISBN: 0580 40809 4

² BSI, ISBN: 0580 38920 0

- 4.15 In any case of abnormal emissions, whether or not related to a monitoring exercise, 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.
- 4.16 The Permit holder shall inform Sheffield City Council's Environmental Protection Service 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.
- The report shall include:
- The date and time of the incident;
 - The cause and nature of the incident;
 - Details of any abnormal emissions;
 - Remedial action taken
- 4.17 The introduction of dilution air into duct systems in order to comply with emission limits shall not be permitted.
- 4.18 Where the results of any non-continuous monitoring exceed twice the emission concentration limit, the Permit holder shall inform Sheffield City Council's Environmental Protection Service no later than 1000 hours the following working day after receipt of the results of the emissions testing.

5.0 Maintenance of Abatement Plant

- 5.1 The Permit holder shall ensure that the arrestment plant, including pressure drop indicators and alarms, serving the shotblasting machines, fettling machines and sand reclamation unit are serviced at least once in every 12 month period to ensure sound operation. Details of the servicing or maintenance shall be recorded in the log book kept in accordance with condition 4.7.

6.0 Materials Handling

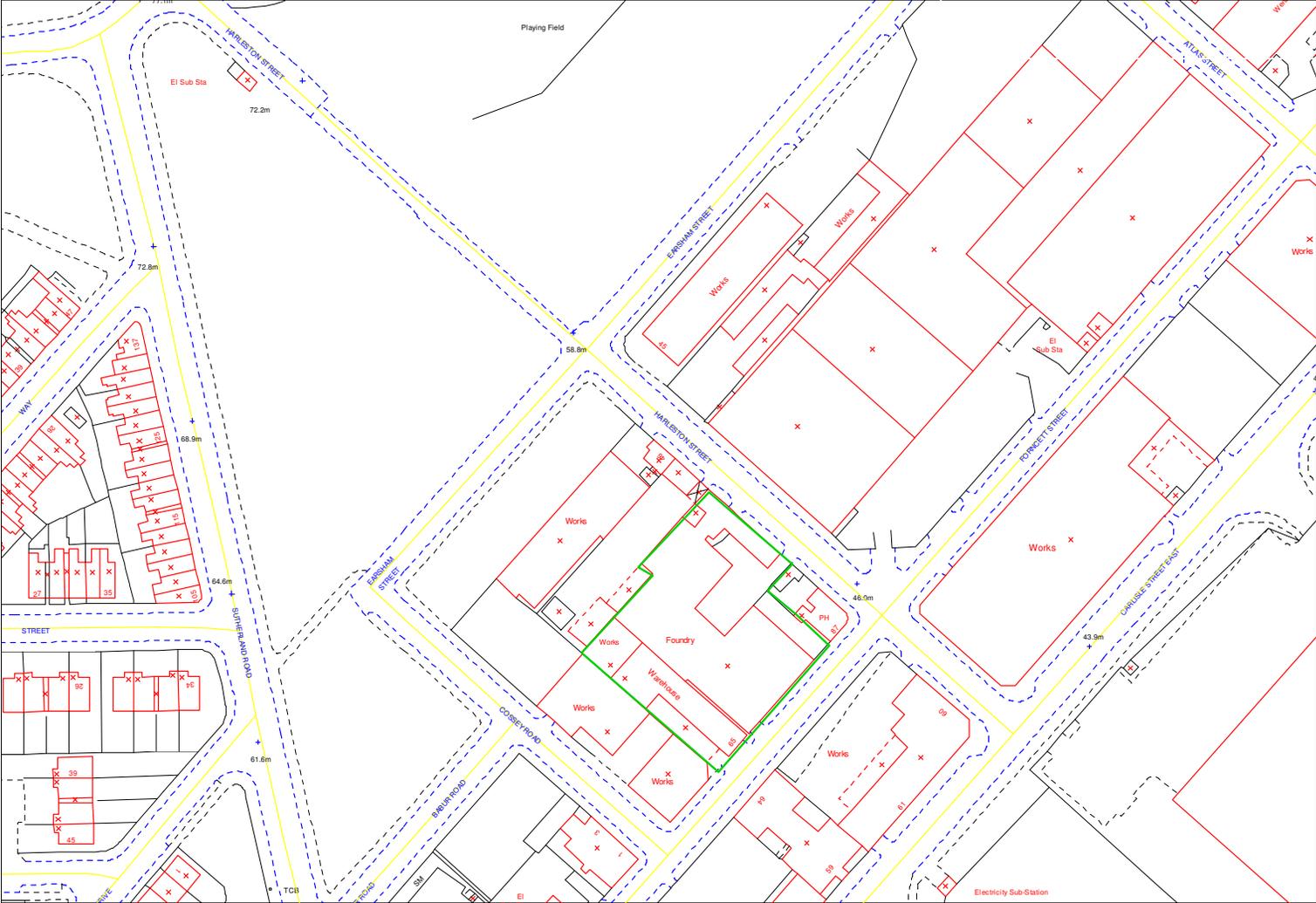
- 6.1 Materials likely to generate particulate matter shall be unloaded, handled, transported and stored in such a manner that the emission of particulate matter to the air is prevented or, where not practicable, minimised and rendered harmless.

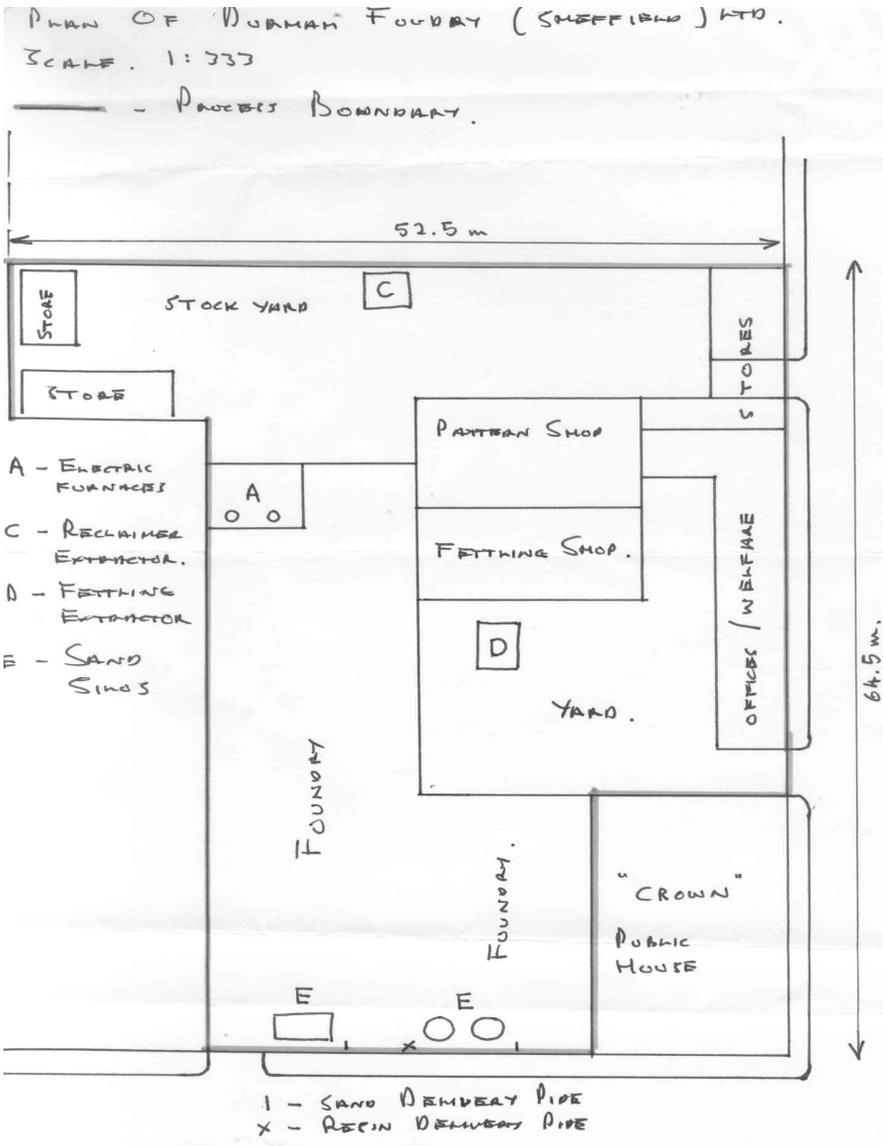
- 6.2 Stocks of dusty, or potentially dusty materials, including waste sand shall be stored in enclosed areas of the site, or under cover or shall be treated with water in order to minimise wind whipping of particulate matter.
- 6.3 The waste sand collection skip situated externally shall be covered with tarpaulin or other suitable material or shall be treated with water such that emissions of particulate matter to the air are minimised.
- 6.4 The Permit holder 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.
- 6.5 Arrested particulate matter from the filters serving the fettling, shotblasting and sand reclamation unit shall be collected into heavy duty bags or containers which shall be sealed before being deposited in the waste skip in order to minimise emissions of particulate matter.
- 6.6 Spares and consumables subject to continual wear such as bag filters shall be held on site or shall be available at short notice from guaranteed suppliers.
- 6.7 All potentially dusty materials shall be stored in covered containers or under cover.
- 6.8 Visual assessments of emissions from the bag filters serving the waste sand silo shall be undertaken periodically during unloading into the skip. Any adverse emissions shall be investigated immediately and rectified. Details of any such action shall be recorded in the log book kept in accordance with condition 4.7.
- 6.9 The Permit holder shall ensure that the connector pipe to the base of the waste silo is correctly secured prior to the emptying of the waste sand silo, in order to prevent emissions of particulate matter to the air.
- 6.10 The Permit holder shall ensure that during the emptying of the silo, the skip collecting the waste sand is adequately covered in order to prevent emissions of particulate matter to the air.

7.0 General Conditions

- 7.1 Any emissions to atmosphere outside the normal range of the process when operating under routine operating parameters such as those caused by any failure, breakdown, malfunction bypass of arrestment equipment or plant shall be notified to Sheffield City Council's Environmental Protection Service at the earliest opportunity and in any event not later than 1000 hours on the next working day. Activities shall be adjusted as necessary in order to minimise emissions until normal conditions can be restored. Any such occurrence shall be recorded in the log book kept in accordance with condition 4.7 of this Permit.
- 7.2 External surfaces of the process buildings, ancillary plant and open yards and storage areas shall be inspected annually and cleaned if necessary to prevent the accumulation of dusty material in circumstances where dust may become wind entrained. Particular attention shall be paid to roofs, guttering, roadways, external storage areas and yards. Cleaning operations shall be carried out by wet sweeping methods or vacuuming in order to minimise emissions of particulate matter to air.
- 7.3 The activities shall be carried out within the areas indicated by shading on the plan in Schedule 1 to this Permit.
- 7.4 The layout of process and abatement plant shall be as indicated in Schedule 2 to this Permit.
- 7.5 The Permit Holder shall inform Sheffield City Council's Environmental Protection Service of any proposed changes to the installation which may have an impact on the emissions to atmosphere.
- 7.6 Staff at all levels shall receive training and instructions necessary for their duties and shall include the following:
- responsibilities under the permit;
 - minimisation of emissions at start up and shut down;
 - actions during abnormal emissions including minimisation of emissions.
- 7.7 The Permit holder shall keep and maintain a statement of training requirements for each operational post and keep a record of the training received by each employee whose actions may have an impact on emissions to atmosphere. These documents shall be made available to Sheffield City Council Environmental Protection Service upon request.

**Schedule 1
Installation Boundary**





PROCESS LAYOUT
Schedule 2