POLLUTION PREVENTION & CONTROL ACT 1999
POLLUTION PREVENTION & CONTROL (ENGLAND AND WALES) REGULATIONS 2000

DOCUMENT A : PERMIT

Sarginsons Precision Components

Reference Number **PPC/020.**

Coventry City Council ("the Council") in accordance with Section 10(2) of the Pollution Prevention & Control (England and Wales) Regulations 2000 ("The Regulations"), hereby permits:

Sarginsons Precision Components

Whose registered office is:

Sarginsons plc
(trading as Sarginsons Industries Ltd)
Torrington Avenue
Coventry
CV4 9AG
Registered in England: No: 406668

to operate a Part B installation involving a coating activity, as prescribed in Section 2.2 Part B of Schedule 1 to The Regulations, at:

Sarginsons Precision Components
Torrington Avenue
Coventry
CV4 9AG

The permit is subject to the conditions specified in this document consisting of 12 pages and comprising documents A, B and C, plans PPC/020/A, PPC/020/B, PPC/020/C and Appendix 1.

Signed.....
Alan Bennett, Head of Environmental Health
A person authorised to sign on behalf of the Council

Dated ……

SCOPE

The installation comprises not just any relevant unit carrying out a Part B activity listed in Schedule 1 to the Regulations, but also directly associated activities which have a technical connection with that activity and which could have an effect on pollution.

All pollutant concentrations shall be expressed at reference conditions of 273K and 101.3kPa, without correction for water vapour content.

Technical Guidance documents used in the preparation of this document:

- Secretary of States Guidance Note PG2/4(04) – Iron, Steel and Non-Ferrous Metal Foundry Processes
- Secretary of States Guidance Note PG2/6a(04) – Processes Melting and Producing Aluminium and its Alloys
- Secretary of State's Guidance – General Guidance Manual on Policy and Procedures for A2 and B installations. ISBN 0-85521-028-1

Date Annual Fee Required:	1st April of each financial year
Date For Full Compliance:	Date permit issued
Permit Prepared By:	Ayeisha Mann
Permit Checked By:	Rachel King

LEGISLATION

1. Pollution Prevention and Control Act 1999.
2. Pollution Prevention and Control Regulations 2000 as amended, schedule 1 as amended

BRIEF DESCRIPTION OF THE INSTALLATION REGULATED BY THIS PERMIT

Definitions referred to in this permit

- An **Activity** is an industrial activity forming part of an installation. Different types of activity are listed within Schedule 1 of the PPC Regulations and are broadly broken down into industrial sectors. Other “associated” activities may also form part of an installation.
- An **Installation** comprises not just any relevant unit carrying out a B activity listed within Schedule 1 to the PPC Regulations, but also directly associated activities which have a technical connection with a schedule 1 activity and which could have an effect on pollution.
- An **Operator** is the person (eg a company or individual) who has control over the operation of an installation.
- **Volatile organic compound (VOC)** shall mean any organic compound having at 293K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.
- **Organic solvent** shall mean any VOC which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, or is used as a cleaning agent to dissolve contaminants, or as a dissolver, or as a dispersion medium, or as a viscosity adjuster, or as a surface tension adjuster, or a plasticiser, or as a preservative.
- **Stack** includes structures and openings of any kind from or through which substances may be emitted to air.
- **Duct** includes enclosed structures through which gaseous substances may be conveyed.
- **Process vent** includes open terminations of ducts.
- **Authorised Officer** shall mean an officer authorised to carry out duties under the Pollution Prevention and Control Act 1999 and subordinate regulations
- **Logbook** shall mean any electronic or paper means of storage of the required information as agreed by the regulator
- **Local Authority** shall mean Coventry City Council
- **"m"** means metre
- **"m/s"** means metres per second

The general location of the Permitted Process is shown on the attached plan PPC/020/A. The Installation boundary is marked in red on the attached plan PPC/020/B. The layout of the permitted process is shown on the attached plan PPC/ 020/C.

Description of Installation

This permit is for the melting of aluminium ingots and clean runners and risers in nine bulk melting furnaces and twenty six holding furnaces heated via natural gas burners. The installation includes:

- the production of moulds using resin coated sands
- the manufacture of cores using shell box, warm box and cold box methods
- fluxing using coverall flux,
- grain refining using titanium rods

- de-gassing using nitrogen lance and modification of alloys containing silicon using metallic sodium and strontium,
- casting operations (including die casting) and casting finishing operations

All of the above are to take place within the site outlined in red on the attached plan PPC/020/B.

Table 1
List of Process Areas within the Installation and Associated Emission Points, Pollutants of Concern and Abatement Plant Required

Row Number	Area/Machinery Identification	Pollutants Emitted	Emission Limit in Permit	Abatement Plant Required
1	Extractor Fans in main production area	Smoke	Smoke emitted shall not exceed Ringlemann Shade 1	None
2	Stack serving wet arrestment plant	Particulates	50mg/m3	Wet arrestment plant
3	Stacks x 3 serving the cold box core production process	Triethylamine gas	1.6	None

DOCUMENT B

CONDITIONS

All conditions shall have immediate effect unless stated otherwise.

1.0 EMISSION LIMITS AND CONTROLS

1.1 The introduction of dilution air to achieve the emission concentration limits in this authorisation is not permitted. Exhaust flow rates should be consistent with efficient capture of emissions and good operating practice.

1.2 All emissions to air, other than steam or water vapour shall be colourless and free from persistent mist, fume or droplets.

1.3 All emissions from the extractor fans marked A on Plan 1 shall be free from visible smoke during normal operation and in any case shall not exceed the equivalent of Ringlemann shade 1 as described in British Standard BS2742.1969.

1.4 All emissions from the stack serving the wet arrestment equipment marked B on Plan PPC/020/C shall be free from persistent dust.

1.5 The concentration of total particulate matter being emitted from the stack serving the wet arrestment equipment marked B on plan PPC/020/C shall not exceed 50mg/m^3.

1.6 There shall be no offensive odour caused by the process outside of the process boundary as perceived by the Local Authority Inspector.

1.7 The wet arrestor marked B on plan PPC/020/C shall be fitted with a visual and audible alarm that shall activate in the event of malfunction of the liquor circulation pump or a reduction in liquor level below the operating requirements of the wet arrestor. If the alarm is activated the wet arrestor shall be shut down automatically and metal finishing activities shall cease and not continue until the cause of the failure has been identified and remedied.

1.8 The wet arrestor marked B on plans PPC/020/C shall be fitted with a visual indicator of liquor level. The liquor level and correct functioning of the wet arrestor shall be visually checked on a weekly basis. Records of the visual check shall be kept to include any problems noted or remedial action taken and shall be kept on site for a minimum of 2 years.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

2.1 Monitoring to demonstrate compliance with clauses 1.5 shall take place once in every 24 month period.

2.2 Monitoring to demonstrate compliance with clauses 1.5 shall not take place without the prior approval of this Authority.

2.3 At least 7 days prior to monitoring taking place to demonstrate compliance with clauses 1.5 the operator shall notify this Authority of the provisional date and time of monitoring the pollutants to be tested for and methods to be used.

2.4 If the results of monitoring to demonstrate compliance with clauses 1.5 indicate that the emission concentration is twice the specified emission concentration limit the operator shall notify this Authority immediately.

2.5 If the results of monitoring to demonstrate compliance with clauses 1.5 indicate that the emission concentration exceeds the specified emission concentration limit the operator shall notify this Authority within 7 working days of the monitoring taking place.

2.6 Except in accordance with clauses 2.4 and 2.5 the results of monitoring to demonstrate compliance with clauses 1.5 shall be forwarded to this Authority within 8 weeks of the monitoring taking place.

2.7 An inventory shall be kept of all organic solvent usage in the process, to include details of organic solvent resins, binders and catalysts. A summary of solvent usage shall be forwarded to this Authority every twelve months.

2.8 At least once per day during melting and casting the operator shall undertake visual and olfactory monitoring of emissions from the process within the site process boundary indicated on plan: PPC/020/B. The results of this monitoring shall be recorded in a process log book to include the date and time monitoring took place, the name of the person undertaking the monitoring, any emissions noted and where appropriate the remedial action taken. The log book shall be retained on site for a minimum of 2 years and shall be made available to the Local Authority Inspector on request.

2.9 Any adverse results of the monitoring required in clauses 2.1 and 2.8 shall be investigated immediately and the appropriate remedial action taken. The results of the monitoring and the remedial action taken shall be recorded in the process log book as detailed in clause 2.8.

3.0 OPERATIONAL CONTROLS

3.1 Stocks of raw materials shall be stored in designated areas within the confines of the process boundary.

3.2 Any raw or waste materials that are likely to result in emissions of particulate matter shall be stored in enclosed containers or covered skips.

3.3 Waste shall only be loaded on to vehicles and removed from the site in enclosed containers.

3.4 Any raw or waste materials that are likely to generate odour shall be stored in enclosed containers.

3.5 Delivery of sand to sand hoppers C, E and K as shown on plan PPC/020/C shall only take place when the high level shut off probes are in operation and in full working order.

3.6 The high level shut off probes serving sand hoppers C, E and K shall be tested for correct functioning every six months. Records of such tests shall be kept to include faults noted or remedial action taken and shall be kept on site for a minimum of 2 years.

3.7 The exhaust vents from sand hoppers C, E and K on plan PPC/020/C shall be routed to the Reverse Jet Filtration System.

3.8 The Reverse Jet Filtration System shall in order to reduce dust emissions to atmosphere be fitted with Ultraweb type filtration cartridges. The system shall be maintained in good working order and maintenance records shall be held on site and be available for the inspection of the Local Authority Inspector

3.9 Only triethylamine gas shall be used in the cold box core production process except by prior written approval from this Local Authority.

3.10 Waste sand from the vibrating sand reclaimer shall be collected in the skip marked F on plan PPC/020/C. This skip shall be sheeted to prevent wind whipping and the deposition of sand outside of the process boundary.

3.11 Only virgin aluminium ingots and clean runners and risers shall be melted in the furnaces.

3.12 The furnaces shall only be heated by the use of natural gas.

3.13 The extractor fans marked A on Plan PPC/020/C shall be in operation whenever melting or casting operations are being undertaken.

4.0 STACKS, DUCTS AND PROCESS VENTS

4.1 Particulate matter from the operation of metal finishing machinery in the Fettling and Final Finishing Department shall only be emitted to atmosphere via the wet arrestment plant marked B on plan PPC/020/C.

4.2 The triethylamine gas used in the cold box core production process shall only be emitted to atmosphere via the stacks marked G, H and J on plan PPC/020/C, which shall be at least 3m above roof apex level.

6.0 GENERAL OPERATIONS

5.1 The operator shall undertake regular cleaning and preventative maintenance including inspection and repair/replacement on all plant and equipment concerned with the emission, capture, transport and control of emissions to atmosphere. Where necessary manufacturers guidelines shall be used to determine the regularity of maintenance. Records of preventative maintenance including inspections and any works undertaken shall be kept on site and made available to the local authority inspector on request.

5.2 Spares and consumables for plant and equipment used in the installation in particular that subject to continual use or wear shall be held on site or shall be available at short notice. Such plant or equipment shall not be used unless that plant or equipment is capable of working in accordance with the conditions of this permit.

5.3 Staff at all levels shall receive the necessary training and instruction in their duties relating to control of the activities and emissions to air. Records shall be kept which details all relevant training provided to staff, and these records shall be kept for a minimum of 2 years.

5.4 Any malfunction of plant or spillage of solvent based materials shall be remedied as soon as possible and process operations altered whilst the necessary work is undertaken.

5.5 Any incident likely to give rise to adverse atmospheric emissions or emissions that may have an impact on the local community shall be notified to the local

authority immediately, and the details of incident including remedial action taken recorded in the process log book.

5.6 The operator shall make available on demand and without charge any of the records required to be kept by this permit.

5.7 If there is any intention to change any aspect of the prescribed installation from the description contained in the beginning of this permit, or any other aspect which may affect the substances or concentration or amount of substances being emitted to atmosphere, the operator shall notify the regulator of the proposed changes at least 4 weeks in advance before the changes take place.

DOCUMENT C

RESIDUAL DUTY

In relation to any aspect of the process not regulated by specific conditions in this permit, then Best Available Techniques shall be used:

For the purposes of the Pollution Prevention and Control (England and Wales) Regulations 2000, "best available techniques" 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 basis for emission limit values designed to prevent and, where practicable, generally to reduce emissions and the impact on the environment as a whole; and for the purpose of this definition –

a) "available techniques" means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, in the 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;

b) "best" means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;

c) "techniques" includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

SUPPLEMENTARY NOTES

These notes do not comprise part of the Permit PPC/020 but contain guidance relevant to the Permit.

Inspections and Powers of Entry

Regular inspections will be carried out by officers of the Council (the Local Authority Inspectors)to check and ensure full compliance with the Permit conditions and residual duties. These inspections may be carried out without prior notice.

Under section 108(6) of the Environment Act 1995 authorised Local Authority Inspectors have been granted powers of entry into any premises for the purposes of discharging relevant duties.

Reviews

The Local Authority has a statutory duty to review the permit at least once every 6 years or in the following circumstances set out in regulation 15 of the Pollution Prevention and Control regulations 2000:

a) The pollution from the installation is of such significance that the existing emission limit values for the permit need to be revised or new emission limit values need to be included in the permit
b) Substantial changes in BAT make it possible to reduce emissions from he installation or mobile plant significantly without imposing excessive costs; or
c) Operational safety of the activities carried out in the installation or mobile plant requires other techniques to be used

Health and Safety

This Permit is given in relation to the requirements of the Pollution Prevention and Control (England and Wales) Regulations 2000. It must not be taken to replace any workplace responsibilities the operator has under Health & Safety legislation. Whenever emission limits quoted in this Permit conflict with occupational exposure limits set under the Health and Safety at Work Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

Installation must be operated in order to protect persons at work as well as the environment. In achieving conditions in this Permit the operator must not adopt any course of action that would put at risk the health, safety or welfare of persons at work.

Other Statutory Requirements

This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, building regulations approval, or a waste disposal licence.

This Permit does not authorise a contravention of any other enactment or any order made, granted or issued under any enactment, nor does it authorise a contravention of any rule or breach of any agreement.

The Operator is advised to consult the relevant Planning Department regarding changes that may be required as a result of this Permit (e.g. stack heights) as they may require planning permission.

Transfer of Permits

Where the operator of an installation wishes to transfer, in whole or in part, his permit to another person, the operator and the proposed transferee shall jointly make an application to the regulator to effect the transfer. Such an application shall be accompanied by the permit and any fee prescribed in respect of the transfer.

In the case of partial transfer, where the original operator retains part of the permit, the application must make clear who will retain control over the various parts of the installation. The application must include a plan identifying which parts of the site and which activities the operator proposes transferring.

The local authority will then determine whether to allow the transfer within a two-month period, unless the local authority and the applicants agree a longer period. Where the local authority approves the transfer, the transfer will take effect from the date requested by the operator or a date that may be agreed by the local authority and the applicants.

Variation to Permits

Variation to permits may be initiated either by the local authority or the operator, either in response to changes in the operation of an installation or if new conditions are needed to deal with new matters. Variations may be required in response to the following.

- Change of operation of the installation. (The operator shall notify the local authority under Section 16(1) of the Regulations.)
- In response to the findings of a periodic review of conditions.
- In response to the findings of an inspection.
- New or revised sector guidance notes

The operator should apply to the Local Authority in order to vary a permit under regulation 17 of the Regulations. The application must be in writing and, in accordance with Part 1 of Schedule 7 to the Regulations contain:

- The name, address and telephone number of the operator.
- The address of the installation.
- A correspondence address.
- A description of the proposed changes.
- An indication of the variations the operator would like to make.
- Any other information the operator wants the authority take account of.

Substantial Change

A substantial change means, in relation to an installation, a change in operation, which in the opinion of the local authority may have significant negative effects on human beings or the environment.

Where the local authority deems that a proposed variation constitutes a substantial change, the operator will be informed of the process to follow.

Noise

This Permit does not include reference to noise. Statutory noise nuisance is regulated separately under the provisions of Part III of the 1990 Act.

Appeals

An Appeal can be made against the conditions in, or variations to this Permit as per Part IV of the Regulations. Appeals are made to the Planning Inspectorate who acts on behalf of the Secretary of State. Appeals against conditions within a Permit must

be submitted within 6 months of the date of issue of the permit. Appeals against variation notices must be submitted within 2 months of the date of issue of the notice. Appeals should be despatched on the day they are dated and sent to:

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

HMSO Publications

All HMSO publications can be ordered by telephone on Tel: 0870 600 5522, Fax: 0870 600 5533 or e-mail: book.orders@tso.co.uk

Emission Monitoring Protocol

The documented procedure by which reliable and comparable results are obtained from measurements at source is known as a Protocol.

Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

The main components of a Protocol are as follows:-

1. Calibre and quality of the sampling team.
2. A reference measurement method (standard methods may not always be available)
3. A standard methodology setting out:

- health and safety considerations
- pollutants of interest
- plant operating conditions required
- selection and location of sampling position
- sampling characteristics (e.g. isokinetic etc) and techniques
- sampling frequency
- sampling duration
- number of samples
- type (including make and model), condition and suitability of sampling equipment
- required accuracy
- variability of emissions
- analytical methods including laboratory competence and NAMAS accreditation certificate copy for each pollutant of interest
- analytical precision
- procedures to be adopted if standard methods unavailable
- calibration certificate(s) for sampling equipment
- Quality Control and Quality Assurance procedures
- Presentation of results and associated information.