

POLLUTION PREVENTION AND CONTROL ACT 1999 ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED) INDUSTRIAL EMISSIONS DIRECTIVE 2010/75/EU

Permit Number: 14/092300/JT

Installation Address:
Swann-Morton Limited
Penn Works
Owlerton Green
Sheffield
S6 2BJ

In accordance with Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2016, as amended, Swann-Morton Limited is hereby permitted to operate a solvent emissions activity at the address detailed above, namely the surface cleaning of metals using solvents, in accordance with Regulation 35(2) (h) and Schedule 14 of the Regulations, and Chapter V and Annex VII of the Industrial Emissions Directive, and subject to the following conditions of this Permit.

Signed Dated 20th December 2018

Commercial Team Manager Authorised by Sheffield City Council to sign on their behalf The activity is permitted under Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2016, as amended, and shall be undertaken in accordance with Regulation 35(2) (h) and Schedule 14 of the Regulations, Chapter V and Annex VII of the Industrial Emissions Directive.

Solvent consumption of surface cleaning activity using:

(i) 1 tonne or more of designated hazard statement VOC in any 12 month period

OR

(ii) 2 tonnes or more of any other VOC in any 12 month period.

The Secretary of States Process Guidance Note 6/45(11)(revised June 2014) for Surface Cleaning has provided the framework for the conditions in this permit.

Name & Address of Operator:

Swann-Morton Limited Penn Works Owlerton Green Sheffield S6 2BJ

Contact Name: Darren Hall, Group Environmental Management

Representative

Contact Telephone: 0114 234 4231 darrenhall@swann-morton.com

Registered Office:

Swann-Morton Limited Penn Works Owlerton Green Sheffield S6 2BJ

Company registration number: 696744

Holding Company:

WR Swann Group Penn Works Owlerton Green Sheffield S6 2BJ

Address of Permitted Installation:

Swann Morton Limited Penn Works Owlerton Green Sheffield S6 2BJ

Talking to Us

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

ENVIRONMENTAL PROTECTION SERVICE SHEFFIELD CITY COUNCIL FLOOR 5 NORTH HOWDEN HOUSE 1 UNION STREET SHEFFIELD S1 2SH

Alternatively Email: epsadmin@sheffield.gov.uk or Ring 273 4651

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Explanatory Note to Industrial Emissions Directive Permit for Part B Installations.

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

The following Permit is issued under Chapter V and Annex VII of the Industrial Emissions Directive and Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) 'EP Regulations', to operate an installation carrying out activities covered by Annex VII Parts 1 and 2, to the extent authorised by the Permit.

Process Changes

Under the provisions of the EP Regulations and Article 63 of the Industrial Emissions Directive, 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 and Article 63 of the Industrial Emissions Directive. 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 and Article 65 of the Industrial Emissions Directive to maintain a Public Register containing information of this environmental permit. 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 Floor 5 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 as amended and the Industrial Emissions Directive.

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 2010 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 S.I.2010 No. 675 (as amended) 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.

Swann-Morton Ltd operate a production facility for various scalpels, blades and handles in Hillsborough in Sheffield at the location shown on the plan in Schedule 1 of this Permit. An aerial photograph of the site is shown below:



The permitted activity comprises the surface cleaning of products using Opteon SF79, carrying Hazard Statements¹ H225 (highly flammable liquid and vapour), H319 (causes serious eye irritation), H332 (harmful if inhaled), H336 (may cause drowsiness if inhaled), H412 (aquatic chronic 3) & H413 (harmful to aquatic life with long lasting effects), and Solvex HD, carrying Hazard Statements H225, H332 & H412.

¹ Materials designated, because of their VOC content from 1 Dec 2010: hazard statement H340, H350, H350i, H360D or H360F. Materials designated because of their halogenated VOC content: hazard statements H341 or H351.

Surface cleaning or degreasing is carried out on the ground floor. A site layout plan is shown in Schedule 2. Raw materials (stainless and carbon steel strips) are blanked, heat treated, broken out and ground prior to an ultrasonic preclean in aqueous solution. The products are then solvent cleaned in one of 4 fully enclosed vapour degreasing tanks prior to packing and dispatch. The tanks are bespoke units manufactured by CC Hydrosonics Ltd with serial numbers as shown on the site layout plan in Schedule 2. Degreaser unit No. 5 (serial number 403102005) is used during breakdown or maintenance of one of the other 4 units.

Delivery of Opteon Sf79 is in 205 litre clip top drums, and of Solvex HD is in Safetainers. Solvents are stored at areas as indicated on the plan in Schedule 2. Opteon Sf79 and Solvex HD are used to replenish the solvent in the degreaser tanks on an "as required" basis. The solvent storage tanks are transferred to the degreaser area. The degreaser machines are charged by pumping solvent from the solvent storage tanks via a closed pipe system.

The degreaser machines are switched on at the beginning of the day and run continuously until the close of business when they are switched off. The degreasers are fitted with solvent recovery systems and produce a small quantity of waste, which contains some solvent. The waste is collected in an IBC and stored bunded prior to removal from site by a registered carrier.

Hoppers containing clarifier waste (metal waste and filter paper) are stored over a bunded area which collects the liquid waste from these hoppers and pumps into a liquid waste holding tank. This tank has low level and high level indicator alarms to warn of volume concerns and the tank is double bunded.

Particulate emissions from grinding operations are extracted to bag filters, which are vented through oil mist eliminators at the roof of the factory located as indicated on the plan in Schedule 2. The 7 extraction units serve about 25 grinder extraction points each through a total of 38 clarifiers which use recirculating water as abatement. A quantity of sludge is formed which is removed from site by a registered carrier. 8 clarifiers are fitted with a magnet to separate out the metal waste, which drops into a collection bin to facilitate recycling.

A process flow diagram is presented in Schedule 3.

CONDITIONS OF PERMIT

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

Section 1 - Upgrading

1.1 There are no upgrading requirements.

Section 2 - Plant and Equipment

- 2.1 The permitted activity shall be carried out at the site as indicated by the red outline on the plan in Schedule 1 of this permit.
- 2.2 The permitted activity shall only be carried out using the plant and equipment as detailed in the installation description and on the site layout reproduced in Schedule 2 of this permit.
- 2.3 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, including removal, replacement or changes in the operation;
 - d. Resumption of the operation of any part of, or all of the permitted installation after a cessation notified under (b) above.

Section 3 - Emission Limits and Controls

- 3.1 All emissions to air, other than steam or condensed water vapour shall be free from droplets and free from visible emissions.
- 3.2 There shall be no offensive odour detectable beyond the installation boundary, as perceived by the Regulator.
- 3.3 The use of odour masking agents is not permitted. Where offensive odour is detected at the installation boundary, counteractants may be used only by written agreement with the Regulator.
- 3.4 Dilution air shall not be introduced to aid emissions dispersion except by written agreement of the Regulator.
- 3.5 All surface cleaning activities shall take place inside hermetically sealed CC Hydrosonics machines, which shall be operated and maintained in accordance with manufacturer's instructions.

- 3.6 The CC Hydrosonics machines shall be sealed with sealing tape on all joints, taps and fixings.
- 3.7 A fugitive emission limit value from surface cleaning activities of 20% of the total solvent input shall apply.

Section 4 - Monitoring, Sampling and Measurement of Emissions

- 4.1 The Operator shall ensure that a detailed inventory of organic solvent usage is kept. The organic solvent inventory shall include the total mass of organic solvent inputs minus any solvents sent for reuse/recycling or recovery off site. The Operator shall consider the volatile organic compound content of any substances on work pieces when they arrive, together with the degreasing solvent usage in the vapour degreasing machines. The inventory shall also include all solvents removed from the site as waste and any quantities recovered for reuse. A twelve month summary of the inventory shall be forwarded in writing to the Regulator within one month of the closing date to which the summary inventory relates. The next inventory shall be submitted by 31st January 2019.
- 4.2 In order to determine compliance or otherwise with the 20% of the total solvent input fugitive emission limit laid down in condition 3.7, fugitive emissions shall be calculated from the Solvent Management Plan and submitted as part of that Plan as required by condition 5.1. Details of the Solvent Management Plan calculation are available in Schedule 4.
- 4.3 In case of abnormal emissions, the Operator shall:
 - Immediately investigate the cause and take corrective action;
 - Adjust the process or activity to minimise the emissions;
 - Promptly record the events and action taken.
- 4.4 The Operator shall inform the Regulator of any abnormal emissions within 1 week of the event unless there is an emission that is likely to have an effect on the local community, in which case the information shall be forwarded without delay and in any event no later than 10am the following working day.
- 4.5 In case of emissions of solvent that cause immediate danger to human health, the permitted process shall be suspended immediately.
- 4.6 The Operator shall keep records of any tests, inspections and abnormal emissions in accordance with condition 7.6 of this permit.

- 4.7 The Operator shall monitor the concentration of VOC's around the machines on a weekly basis and keep a record of the results.
- 4.8 The monitoring of the VOC's around the machines shall be undertaken using a calibrated suitable device.

Section 5-Solvent Management Plan

- 5.1 The Operator shall calculate annual consumption of cleaning solvents and produce and submit a Solvent Management Plan to the Regulator on an annual basis by January 14th each year. The next solvent consumption data and Solvent Management Plan are to be submitted by 14th January 2019.
- 5.2 The Solvent Management Plan shall be reviewed at least annually. Review records and updates to the Solvent Management Plan shall be forwarded to the Regulator annually.
- 5.3 The Solvent Management Plan shall be written having regard to the method given in Process Guidance PG6/45 on Surface Cleaning, as reproduced in Schedule 4.
- 5.4 The Operator shall submit details for approval to the Regulator of any proposal in relation to any of the following activities:
 - Replacement of low or no VOC solvent degreasing systems with conventional high VOC content degreasing systems;
 - Introduction of conventional high VOC content degreasing systems into the process;
 - Introduction of conventional high VOC content degreasing systems onto products where it was not previously used;
 - Introduction of high solids formulations, which have no beneficial effect on the product but increase the solids used, except where a reduction in the overall VOC emissions can be demonstrated:
 - Introduction of designated hazard statement substances H340, H350, H350i, H360D, H360F, H341 or H351.

Section 6 - Materials Handling

- 6.1 All solvents shall be stored in Safetainers or sealed drums. Storage of solvents shall be in accordance with the advice in the relevant chemical data sheet.
- 6.2 The degreasing machines shall be totally enclosed at all times. The charging and emptying of the machines shall be from Safetainers or sealed drums by pump method and the system shall be a totally contained emission free transfer system.

- 6.3 The location of the solvent degreasing units shall, as far as reasonably practicable, be free from draughts to reduce losses through air turbulence. The area shall also be free from naked flames and hot surfaces.
- 6.4 Work-handling equipment for transporting the product shall be integral to the machine.
- 6.5 The baskets used for loading shall be designed to enhance the cleaning efficiency, whilst also minimising the retention of organic solvent and vapours with each load cleaned. The basket shall be loaded to its maximum capacity whilst ensuring that the orientation and packing of the components is optimised to reduce possible retention and drag of organic solvent.
- 6.6 The programming and loading of work into vapour degreasing machines shall be controlled, monitored and reviewed to ensure that the number of surface cleaning operations is minimised.
- 6.7 In cases where a degreasing machine is expected to be unused for a period of 30 minutes or more, the unit shall be switched off.
- 6.8 Any stacking of the product prior to cleaning shall be done so as to reduce contamination of the work pieces.
- 6.9 Cleaning operations involving organic solvents shall be periodically reviewed, at least once every 2 years, to identify opportunities for reducing VOC emissions. The Operator shall provide the Regulator with a copy of this report. The first of these reports shall be submitted by 14th January 2019.
- 6.10 All organic solvent contaminated materials, for example, rags or overalls impregnated with solvents, used spill kits, shall be stored in suitable containers prior to removal from site. The containers shall be metal and shall be fitted with self-closing lids.
- 6.11 All spillages of organic solvents shall be cleared immediately.

 Depending upon the size of the spill this may be by cloth or suction pump into a sealed container. Any VOC contaminated cloths shall be placed in a sealed container. Details of spillages including reasons, quantities, and remedial and preventative actions shall be recorded in accordance with condition 7.6 of this permit.
- 6.12 The waste solvent storage tank shall have low level and high level alarms to control the volume of the tank. The tank shall be double bunded.
- 6.13 All bunding shall be impervious and resistant to the liquids in storage and be capable of holding 110% of the capacity of the largest storage container.

- 6.14 Empty drums or containers contaminated with organic solvent residues shall be closed or lidded to minimise emissions.
- 6.15 All reasonably practicable effort shall be made to minimise the amount of residual organic solvent bearing material left in drums or other containers after use.

Section 7 - General Conditions

- 7.1 Effective preventative maintenance shall be employed on all plant and equipment concerned with the control of emissions to air. Essential spares and consumables shall be held on site or be available at short notice from suppliers, in order to rectify a breakdown rapidly.
- 7.2 The Operator shall keep a maintenance programme in relation to degreasers, extraction systems, storage areas and associated equipment. Records shall be kept of maintenance works carried out. The maintenance programme and maintenance records shall be made available for inspection by the Regulator upon request.
- 7.3 No solvents shall be used for cleaning other than in the permitted degreasing machines listed in this permit, unless agreed in writing by the Regulator.
- 7.4 Staff at all levels shall receive the necessary training in their duties relating to control of the process and emissions to air. The training shall include:
 - Awareness of responsibilities under this Permit with particular emphasis on conditions likely to give rise to VOC emissions (e.g. spillages);
 - Minimising emissions at start-up and shut-down;
 - Actions to minimise emissions during abnormal operating conditions.
- 7.5 The Operator 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 the Regulator upon request.
- 7.6 The Operator shall maintain records of any activities or incidents outlined in this Permit. Records up to and including the previous 2 years shall be kept on site. The records shall be made available to the Regulator upon request.

- 7.7 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.
- 7.8 The Operator shall notify the following to the Regulator, in writing, within 14 days of their occurrence:-
 - Any change in the trading name of Swann-Morton Ltd registered name or registered office address;
 - A change to any particulars of any ultimate holding company of Swann Morton Ltd (including details of an ultimate holding company where Swann Morton Ltd has become a subsidiary);
 - Any steps taken with a view to Swann Morton Ltd going into administration, entering into a company voluntary arrangement or being wound up.
- 7.9 The Operator shall notify the Regulator without delay of:
 - a) The detection of an emission of any substance, which exceeds any limit or criterion in this Permit, specified in relation to the substance:
 - b) The detection of any fugitive emission that has caused, is causing or may cause significant pollution, unless the quantity emitted is so trivial that it would be incapable of causing significant pollution.
 - c) The detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution
 - d) Any accident, which has caused, is causing or has the potential to cause significant air pollution.
- 7.10 All reports and notifications required by this Permit, or under any Article under the Industrial Emissions Directive, shall be sent to the Regulator. Unless notified in writing, all reports, notifications and communications in respect of this Permit shall be sent to:

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

END OF PERMIT CONDITIONS

Please Note

Where complaint is attributable to the operation of the installation and is, in the opinion of the Local Authority, justified, or if new knowledge develops on the potential for harmful effects from emissions, an immediate review of the Permit shall be undertaken. The Local Authority shall subsequently specify any new requirements and compliance time scales.

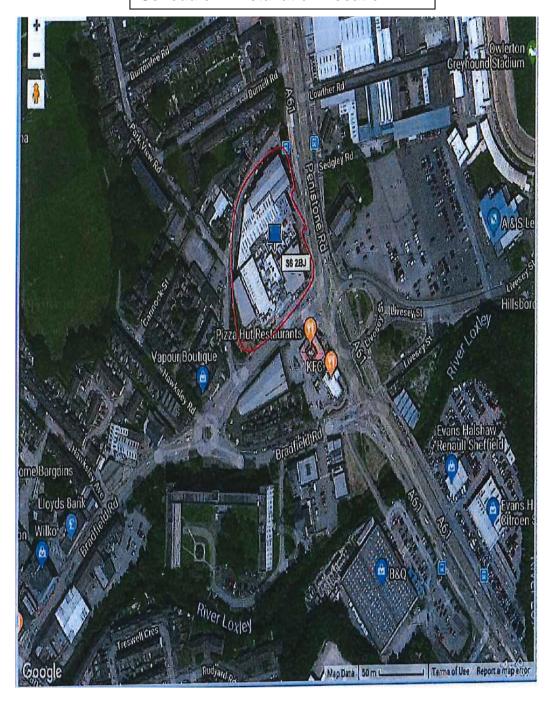
An annual subsistence fee as prescribed by the Secretary of State for the Environment shall be payable, for this Permit, by the process Operator, to this Authority within 2 weeks of the 1st April of each year.

In the event that the Permit has been issued after the 1st April in the initial year then the subsistence fee shall be pro rata for the complete months remaining and shall be due within 2 weeks of the Permit issue date.

If the relevant payment is not received by Sheffield City Council's Environmental Protection Service then Permit revocation procedures shall be initiated in accordance with Section 22 of the Environmental Permitting (England & Wales) Regulations 2016, as amended, or any statutory reenactment of the same.

The requirements of this Permit are not to be taken as planning permission. Where any structural alterations are necessary to ensure compliance with this Permit then the normal planning channels should be followed.

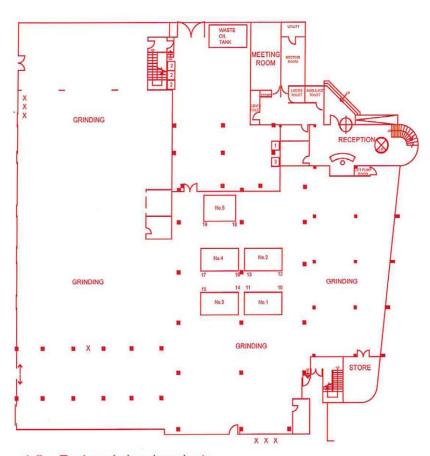
Schedule 1: Installation Location



Schedule 2: Installation Layout

Appendix B

OWLERTON GREEN



- 1-5 = Enclosed cleaning plants
- 1 = Waste solvent IBC storage tank
- 2 = Solvex HD storage tanks (Safetainer System) 3 = Opteon SF79 storage tanks
- 10-19 sample points for Mass emission

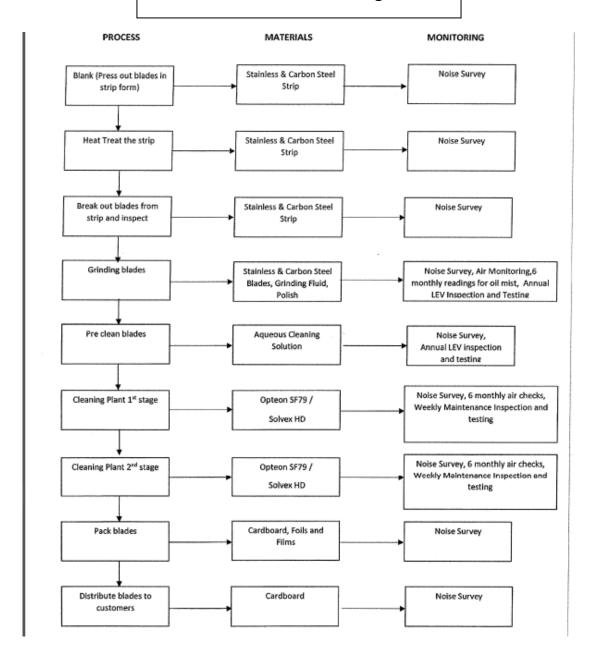
Degreaser Tank Serial Numbers:

- No.1: 687052011 4 stage Mk.2 vapour degreaser
- No.2: 884042014 4 stage Mk.2 vapour degreaser
- No.3: 383052005 3 stage Mk.2 vapour degreaser
- No.4: 977102015 3 stage Mk.2 vapour degreaser
- No.5: 384052005 3 stage Mk.2 vapour degreaser

x Oil mist eliminator extraction terminations

Manufacturer CC Hydrosonics

Schedule 3: Process Flow Diagram



Schedule 4: Solvent Management Plan

Inputs:

How much solvent is:

- bought, whether in pure form or contained in products
- recycled back into the process

Outputs:

How much solvent is:

- emitted to air, whether directly or via abatement equipment;
- discharged to water, whether directly or via water treatment;
- sent away in waste;
- lost by spills, leaks etc;
- leaving the installation in the product.

Inputs of Organic Solvent in the time frame over which the mass balance is being calculated (I)

- **I1** The quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process/activity
- **12** The quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process/activity. (The recycled solvent is counted every time it is used to carry out the activity).

Outputs of Organic Solvents in the time frame over which the mass balance is being calculated (O)

- **O1** Emissions in waste gases.
- **O2** Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating O5.
- **O3** The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.
- **O4** Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.
- **O5** Organic solvents and/or organic compounds lost due to chemical or physical reactions (including for example those which are destroyed, e.g. by thermal oxidation or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under O6, O7 or O8).
- **O6** Organic solvents contained in collected waste.

- **O7** Organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product.
- **O8** Organic solvents contained in mixtures recovered for reuse but not as input into the process/activity, as long as not counted under O7.
- O9 Organic solvents released in other ways.

