PERMIT REFERENCE: PPC 156
Dunlop Aerospace Ltd

Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales)
Regulations 2000 as amended

Process Address	Holbrook Lane Coventry CV6 4AA
Process Type	Surface Treatment of Metal
Current Operator	Dunlop Aerospace Ltd
Previous Operator	n/a
Date of Application	1st April 2004
Date Permit Issued	10th February 2005

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

DOCUMENT A : PERMIT

Dunlop Aerospace Ltd

Reference Number **PPC/156.**

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:

Dunlop Aerospace Ltd

Whose registered office is:

Dunlop Aerospace Ltd
Holbrook Lane
Coventry
CV6 4AA

to operate a Part B installation involving Surface Treatment of Metals and Plastic Materials, as prescribed in Section 2.3 Part B of Schedule 1 to The Regulations, at:

Dunlop Aerospace Ltd
Holbrook Lane
Coventry
CV6 4AA

The permit is subject to the conditions specified in this document consisting of 12 pages and comprising documents A, B and C, plans PPC/156./A, PPC/156/B, PPC/156/Ci, Cii , Ciii and Appendix 1.

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

Dated ……10/02/2005…….

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 PG4/1 (04) – Surface Treatment of Metals
- 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:	Matthew Pegg
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/156./A in addition to the Installation Boundary which is marked by a red hatched line. The internal layout of the workshop is shown on plan PPC/156/B. Production flow diagrams are attached to this permit marked PPC/158/Ci, Cii and Ciii.

Description of Installation

This permit is for the use of nitric acid for the surface treatment of metals.

The process commences with the delivery and storage of nitric acid to the fully bunded area the process cell followed by transfer in sealed containers to lines A, C and D. Nitric acid is then transferred to process tanks using an electrically operated pump, or by manual pumping to smaller containers followed by subsequent decanting into the relevant solutions.

The surface treatment of metal then takes place on lines A, C and D. Discharges to atmosphere take place via a large scrubber connected to line A and small scrubber connected to lines C and D. The two scrubbers discharge through a single joint stack incorporating a series of valves to allow diversion of emissions through one scrubber if necessary.

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	Stack 1	Oxides of Nitrogen, Hydrogen fluoride	Condition 1.3	Scrubber 1
2	Stack 1	Oxides of Nitrogen, Hydrogen fluoride	Condition 1.3	Scrubber 2

DOCUMENT B

CONDITIONS

All conditions shall have immediate effect unless stated otherwise.

1.0 EMISSION LIMITS AND CONTROLS

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

1.2 Emissions from all process tanks containing nitric acid and/or hydrofluoric acid shall only be emitted to atmosphere through the scrubbers, via the local extraction system.

1.3 The following concentrations of emissions to atmosphere from the scrubbers stack, expressed as a one-hour mean, shall not be exceeded.

a) Oxides of nitrogen (expressed as nitrogen dioxide equivalent)	current limit 400mg/m^3 reducing to limit of 200mg/m^3 within 12 months of permit issue
b) Fluoride (expressed as hydrogen fluoride)	current limit 10mg/m^3 reducing to limit of 5mg/m^3 within 12 months of permit issue

1.4 The introduction of dilution air to achieve the emission concentrations specified in 1.3 above is not permitted.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

2.1 Emissions from the scrubbers stack shall be tested for oxides as nitrogen once every 12 months to demonstrate compliance with Clause 1.3(a).

2.2 Emissions from the scrubbers stack shall be tested for hydrogen fluoride once every 12 months to demonstrate compliance with clause 1.3(b).

2.3 The Local Authority shall be informed at least 7 days in advance of any emissions monitoring to be carried out to comply with 2.1 and 2.2 above. This notification shall include details of the methods to be employed, and the time and date monitoring will take place. Results of emissions monitoring required by clauses 2.1 and 2.2 shall be forwarded to the Local Authority within 8 weeks of the completion of the sampling.

2.4 Visual and olfactory assessments of emissions shall be made around the perimeter of the factory premises, where accessible, at least once a day, to ensure compliance with clause 1.1 above.

2.5 The results of monitoring carried out to comply with clause 1.1, shall be recorded in a log book, including the date, time and location the assessment took place, the name of the observer and the assessment made. The log book shall be retained on site for a minimum of 4 years.

2.6 Any adverse results from the monitoring required by clause 1.1 shall be investigated immediately. The cause shall be identified and any corrective

action required shall be taken. If necessary, process operations shall be adjusted or ceased until such action is complete. All adverse results, their cause, and any action taken shall be recorded in the log book outlined in clause 2.5.

2.7 The alkali concentration in the wet scrubbers shall be continually monitored by the automatic pH and dosing system. The concentration of the alkali solution shall be maintained at or above pH10. The system shall be set to automatically dose with 30% sodium hydroxide if the pH drops below 10. Records of this monitoring and any dosing required shall be kept in the log book outlined in clause 2.5.

2.8 The pH of the scrubber liquor shall also be manually tested at least once a month to ensure correct functioning of the automatic system. Results of these tests shall be recorded in the log book outlined in clause 2.5, including the date the test takes place.

2.9 The circulation of the scrubber liquor shall be continuously monitored. An alarm shall be activated in the event of pump failure, and process operations shall cease until the cause of the failure has been identified and remedied. Such failures and remedial action shall be recorded in the log book outlined in clause 2.5.

2.10 Visual inspections of the scrubbers shall take place once a week to ensure correct functioning of the equipment, and liquor circulation. Any adverse observations shall be investigated and corrective action taken as necessary. The results of observations and any action taken shall be recorded in the log book outlined in clause 2.5, including the date of inspection, and name of the observer.

2.11 The air flow within the extraction system shall be continuously monitored. The cause of any variations to the air flow shall be investigated and corrective action taken as necessary. Results of monitoring and any action shall be recorded in the process log book outlined in clause 2.5.

3.0 STACKS, DUCTS AND PROCESS VENTS

3.1 The final discharge point of the stack serving the scrubbers shall be 14m above ground level.

3.2 The efflux velocity of emissions from the stack serving the scrubbers shall be sufficient to ensure dispersion of the emission plume. This will normally be not less than 15m/sec. at full load operation.

3.3 The linear velocity within the stack shall be controlled in order to prevent entrainment of droplets in the emission.

3.4 The process stack and all extraction system ducting shall be maintained in an airtight condition. Records of maintenance and servicing carried out to meet this requirement shall be kept for a minimum of 2 years including any faults noted and repairs made.

3.5 The stack from the scrubbers shall not be fitted with any restrictions at the final opening and shall discharge vertically.

4.0 GENERAL OPERATIONS

4.1 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.

4.2 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.

4.3 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.

4.4 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.

4.5 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.

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

4.7 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/156. but contains 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.

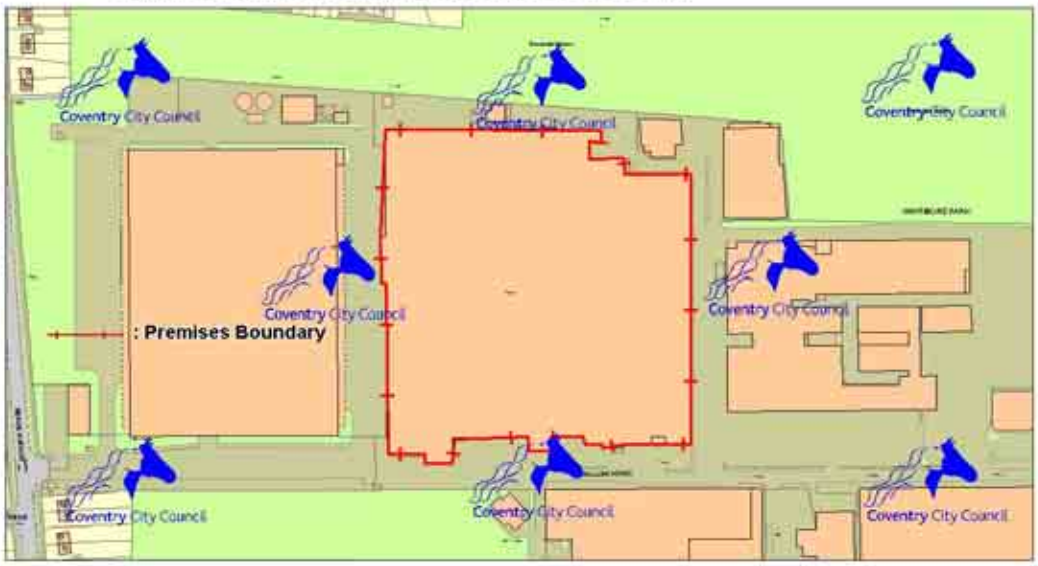
Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

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.

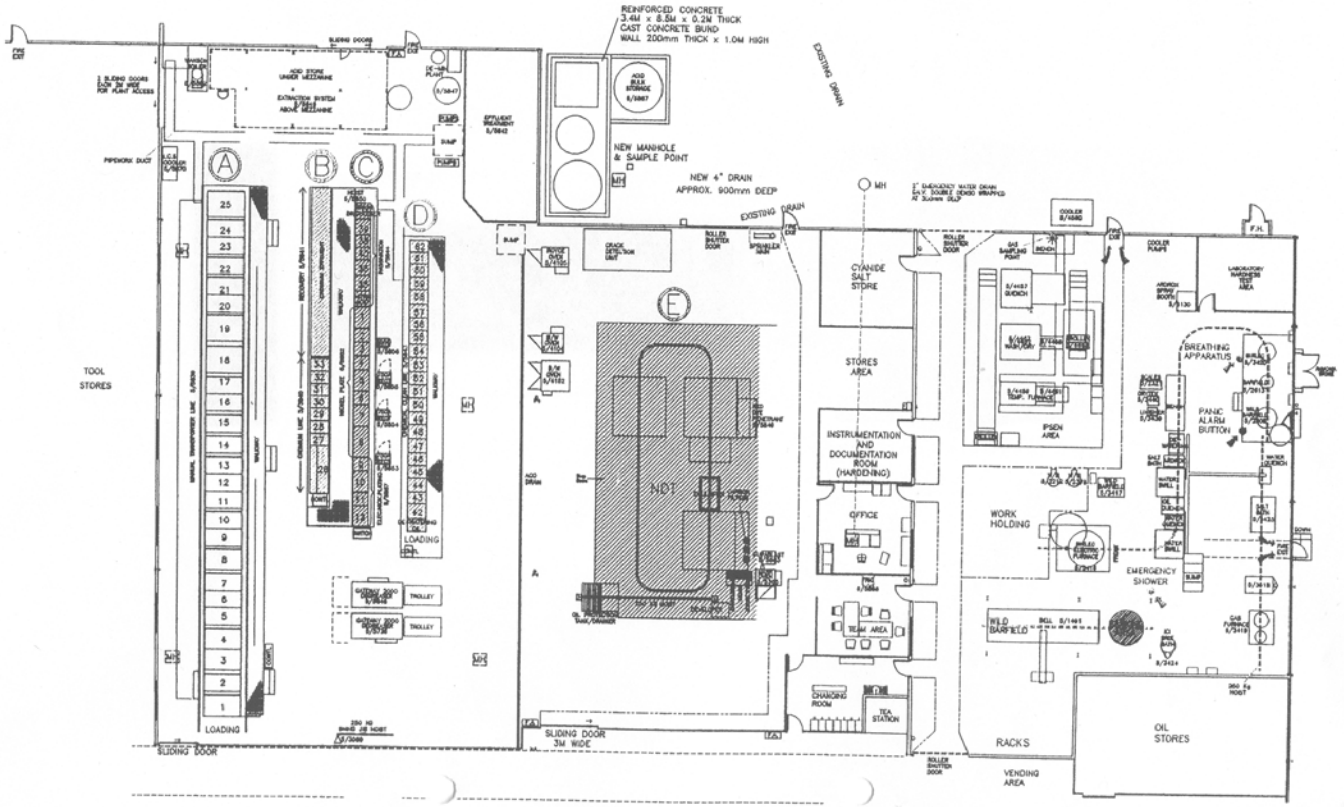
Plan PPC/156/A Premises Boundary of Dunlop Aerospace Ltd.



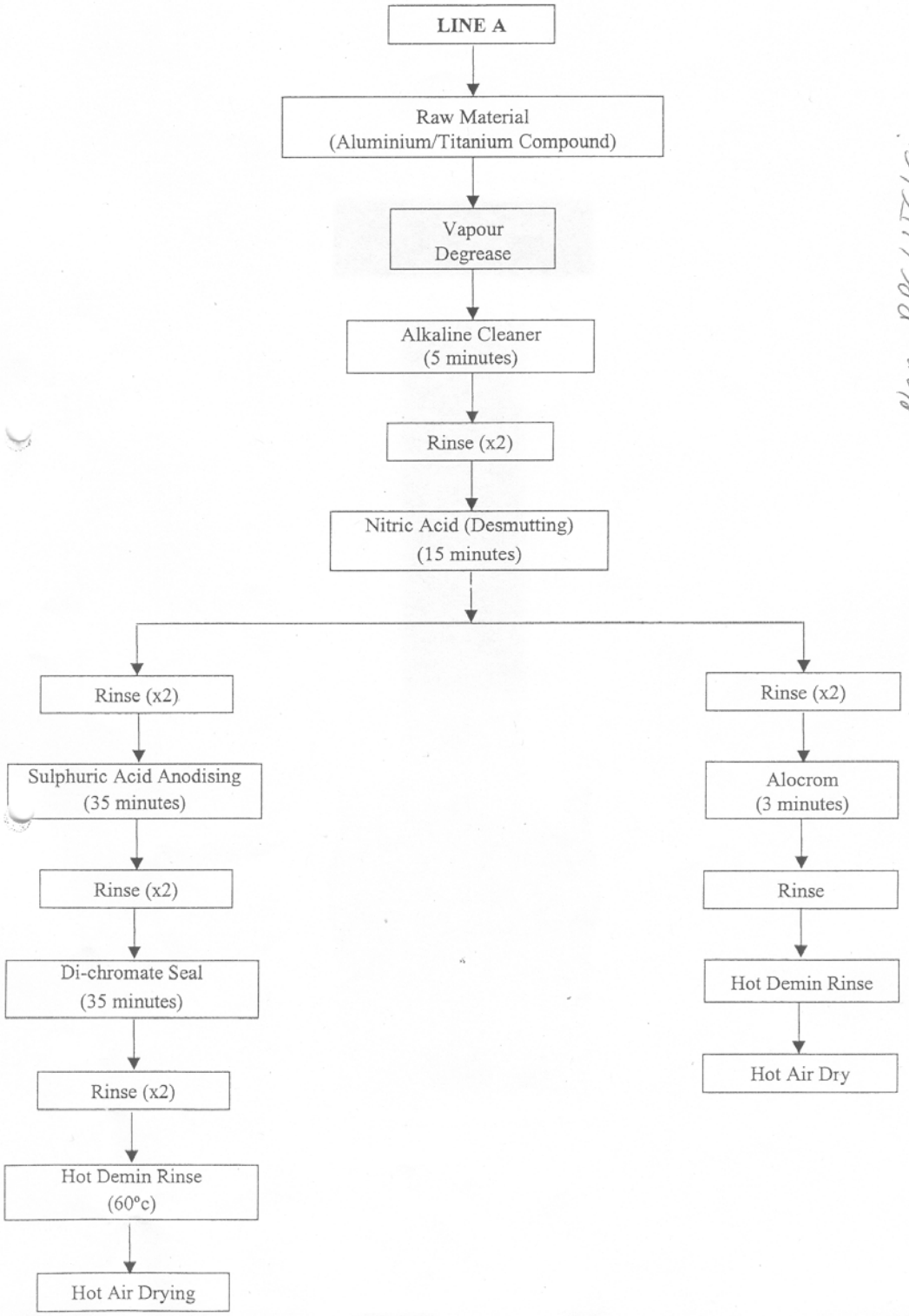
City Services Directorate
Environmental Health
Environmental Protection
Broadgate House, Broadgate
Coventry, CV1 1NH

Tel: 024 7683 1832
Fax: 024 7683 1840

Plan PPC/1561B

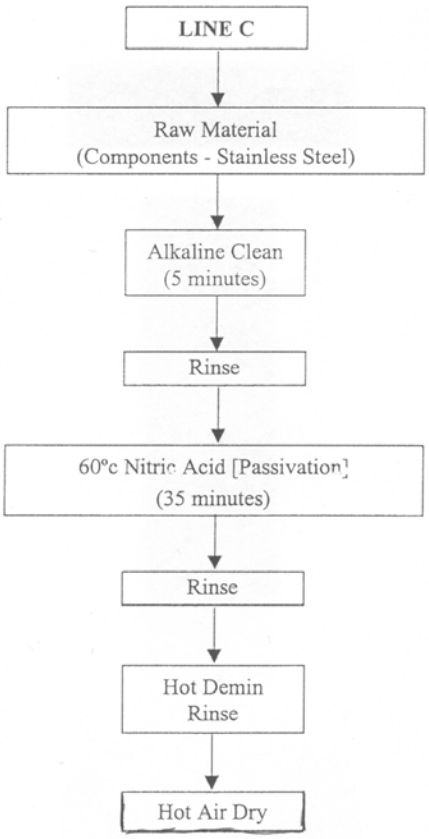


PRODUCTION FLOW DIAGRAM



Plan PPC/156/C1

PRODUCTION FLOW DIAGRAM



Plan PPC/156/Cii

PRODUCTION FLOW DIAGRAM

Plan PPC/156/Ciii