

PERMIT REFERENCE: PPC 157  
Dunlop Aerospace Ltd

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

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

**POLLUTION PREVENTION & CONTROL (ENGLAND AND WALES)  
REGULATIONS 2000**

**DOCUMENT A : PERMIT**

**Dunlop Aerospace Ltd**

Reference Number **PPC/157.**

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 a coating activity, as prescribed in Section 6.4 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/157/A, PPC/157/B, and Appendix 1



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

Dated .....10/02/05.....

## **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 PG6/40(04) – Coating and recoating of aircraft and aircraft components
- 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/157/A, in addition to the installation boundary that is shown as a red hatched line. The internal layout of the paint shop is shown on plan PPC/157/B.

### **Description of Installation**

This permit is for the degreasing and subsequent spraying of aircraft components.

The process begins with the delivery and storage of paints, diluents and cleaning solvents which are kept in a paint store until the transfer to the point of use in sealed containers.

All component parts undergo degreasing in one of four degreasing tanks using Trikolene LE. This is done to prepare the component parts prior to painting.

All components are then sprayed in one of four spray booths using high volume low pressure spray guns.

The painted components are then dried as necessary in one of four drying ovens to produce the finished components.

**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	DAIPC Spraybooth	Particulates, Volatile Organic Compounds, Isocyanates	Particulates – 50mg/m <sup>3</sup> , VOC 50mg/m <sup>3</sup> , Isocyanates – 0.1mg/m <sup>3</sup>	Wet Back Filtration
2	DAIPC Oven	Volatile Organic Compounds	VOC 50mg/m <sup>3</sup>	None
3	DAS 2 Spraybooth	Particulates, Volatile Organic Compounds, Isocyanates	Particulates – 50mg/m <sup>3</sup> , VOC 50mg/m <sup>3</sup> , Isocyanates – 0.1mg/m <sup>3</sup>	Wet Back Filtration
4	DAS 2 Oven	Volatile Organic Compounds	VOC 50mg/m <sup>3</sup>	None
5	W & B Spraybooth	Particulates, Volatile Organic Compounds, Isocyanates	Particulates – 50mg/m <sup>3</sup> , VOC 50mg/m <sup>3</sup> , Isocyanates – 0.1mg/m <sup>3</sup>	Wet Back Filtration
6	W & B Oven	Volatile Organic Compounds	VOC 50mg/m <sup>3</sup>	None
7	DAS 1 Spraybooth	Particulates, Volatile Organic Compounds, Isocyanates	Particulates – 50mg/m <sup>3</sup> , VOC 50mg/m <sup>3</sup> , Isocyanates – 0.1mg/m <sup>3</sup>	Wet Back Filtration
8	DAS 1 Oven	Volatile Organic Compounds	VOC 50mg/m <sup>3</sup>	None

**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, free from persistent mist and free from persistent fume.
- 1.2 All emissions to air shall be free from offensive odour outside the process boundary, as perceived by an officer of this Authority.
- 1.3 The following concentration limits of emissions to atmosphere, expressed as a fifteen minute mean, shall not be exceeded in the final discharge to atmosphere.
- |   |                      |
|---|----------------------|
| (a) Particulate matter from the 4 spray booths  | 50mg/m <sup>3</sup>  |
| (b) Volatile Organic Compounds<br>(expressed as total carbon excluding particulate matter)<br>from the 4 spray booths, and 4 ovens. | 50mg/m <sup>3</sup>  |
| (c) Isocyanates (expressed as total NCO group<br>Excluding particulate matter)<br>from the 4 spray booths.                          | 0.1mg/m <sup>3</sup> |
- 1.4 The introduction of dilution air to achieve the emission concentration limits in this authorisation is not permitted.

### **2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS**

- 2.1 Visual and olfactory assessments of omissions from the process stacks shall be made at least once a day from around the process boundary, where accessible.
- 2.2 Any abnormal emissions noted from the monitoring in 1.1 shall be acted on immediately and remedial action taken as necessary. If necessary to prevent further adverse emissions, operation of the process shall cease until remedial work is complete.
- 2.3 Results of monitoring from 1.1 above, and any action taken under 1.2 above, shall be recorded in a log book. This should include the date and time of monitoring, description of the emission, wind direction, any action taken and the name and signature of the person making the record. The log book shall be retained on site for 4 years.
- 2.4 Emissions of particulate matter from the 4 spray booths shall be tested once every 12 months to demonstrate compliance with clause 1.3 above.
- 2.5 Emission of volatile organic compounds from the 4 spray booths and 3 ovens shall be tested once every 12 months to demonstrate compliance with clause 1.3 above.
- 2.6 Emissions of isocyanates from the 4 spraybooths shall be tested every 12 months to demonstrate compliance with clause 1.3 above.

- 2.7 The date and time of monitoring, pollutants to be tested and proposed test methods for periodic monitoring required by clauses 1.3 shall be forwarded to this Authority at least 14 days prior to any such monitoring taking place.
- 2.8 The results of all periodic monitoring required by clauses 1.3 shall be forwarded to this Authority within 8 weeks of the completion of sampling.
- 2.9 If any emission measurement exceeds twice the concentration limits set in clause 1.3, this Authority shall be notified immediately.
- 2.10 The results of all periodic monitoring shall be retained on site for a minimum of 4 years. Any adverse results shall be investigated immediately and remedial action taken as necessary. If necessary to prevent further adverse emission, process operations shall cease until remedial work is complete. Details of any investigations and remedial actions shall be recorded in the log book mentioned in clause 2.3 above.
- 2.11 A detailed record shall be kept of all solvents used in the process. This shall include coating products, diluents and cleaning products. Any solvent, which is recycled, may be deducted from the total usage figure. The record shall be submitted to this Authority at least once every 12 months.

### **3.0 OPERATIONAL CONTROLS**

- 3.1 All equipment used for the spray application of coatings shall be capable of achieving a transfer efficiency of solids of at least 65%.
- 3.2 The cleaning of spray guns and other equipment shall only take place in the designated areas whilst the extraction is in proper working order.
- 3.3 Spray gun spray out following cleaning shall only be carried out in the spray booths and whilst the booths are in proper working order.
- 3.4 Spraying of paint shall only take place in the designated spray booths, and whilst booths are in proper working order.
- 3.5 All full and partially full containers that hold materials that contain solvents should be stored tightly lidded. Any solvent soaked materials shall be stored in enclosed containers. Nominally empty containers that have held solvent containing materials shall be stored in a manner so as to prevent emissions of volatile organic compounds and odours to atmosphere.

### **4.0 DEGREASING OPERATIONS**

- 4.1 All degreasing tanks shall be kept covered when not in active use. Covers shall rest below the rim vent slot.
- 4.2 The freeboard height above the vapour level shall be at least 75% of the width of the open area of the tank.
- 4.3 All tanks shall be fitted with rim ventilation.
- 4.4 Loading and unloading of the tanks shall be done using the vertical powered hoists. These shall be operated at a speed to prevent solvent drag-out on unloading. Components should be held on the jig in the freeboard zone on unloading, for sufficient time to allow residual solvent to evaporate.

- 4.5 Loads shall not exceed 50% of the open horizontal area of the tank.
- 4.6 A vapour level cut-out shall be fitted to all tanks in accordance with the manufacturer instructions. The cut-out device shall be checked to ensure it is in correct working order once every 6 months.
- 4.7 Cleaning of the degreasing tanks and associated equipment shall only be carried out when the local exhaust ventilation is in operation. Any waste material removed shall be stored in sealed containers. Charging of the tanks shall only take place when they are cool.
- 4.8 Discharge of any solvents from the tanks shall be from a point below the condensing coils, and shall only take place when the local exhaust ventilation and cooling coils are in operation.
- 4.9 Tanks and associated equipment shall be inspected once every month for leaks. Any defects found shall be rectified as soon as possible, and if necessary to prevent emissions to atmosphere, the equipment shall cease to be used until remedial action is completed. Records of inspections and any action taken shall be kept in a log book which shall include details of what was inspected and by whom.

## **5.0 STACKS, DUCTS AND PROCESS VENTS**

- 5.1 Emissions from the 4 spray booths shall only be emitted via the water filtration system, which must be in proper working order.
- 5.2 The height of the final discharge point from the spray booths and ovens shall be sufficient to adequately disperse emissions.
- 5.3 Emissions from the degreasing tanks shall be contained and only be discharged to atmosphere via the proper process exhausts.

## **6.0 GENERAL OPERATIONS**

- 6.1 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.
- 6.2 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.
- 6.3 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.



- 6.4 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.
- 6.5 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.
- 6.6 The operator shall make available on demand and without charge any of the records required to be kept by this permit.
- 6.7 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.

**7.0 COMPLIANCE WITH SOLVENT EMISSIONS REGULATIONS**

- 7.1 The operator shall identify products or materials that are/contain risk phrased substances/materials R45, R46, R49, R60 and R61 and formulate and implement a timetable to replace, control and limit designated risk phrase materials as soon as possible, as defined and agreed by the Local Authority.
- 7.2 The operator shall demonstrate compliance with the Solvent Emissions (England & Wales) Regulations 2004 by one of the following methods:
- 1) By 31<sup>st</sup> October 2007 achieve the following VOC emission limits expressed as total excluding particulate matter over a 30 minute mean:

<b>Release Point</b>	<b>Emission Limits</b>
<b>Solvent Consumption 5 – 15 tonnes</b>	25% of solvent input (fugitive)
All Waste gases	50 mg/Nm <sup>3</sup> VOC expressed as total mass of organic carbon
<b>Solvent Consumption &gt; 15 tonnes</b>	20% of solvent input (fugitive)
All Waste gases	50 mg/Nm <sup>3</sup> VOC expressed as total mass of organic carbon

**Or**

- 2) The use of a Solvent Reduction Scheme to demonstrate the achievement of a Target Emission which is calculated by identifying the total amount of solids used in process materials in a 12 month period (all ingredients other than water and organic solvents should be assumed to form part of the solids component. The Target Emission is as follows:

<b>Installation</b>	<b>Target Emission By 31/10/05</b>	<b>Target Emission from 31/10/07</b>
5-15 Tonnes Solvent Consumption	Total Mass of Solids X 1.4	Total Mass of Solids X 0.93

15 Tonnes or more solvent consumption	Total Mass of Solids X 0.87	Total Mass of Solids X 0.58
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**Written notification that the operator wishes to comply with the solvent reduction scheme shall be sent to the Local Authority by 31st October 2005.**

## **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/ 157 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 the 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](mailto:book.orders@tso.co.uk)

### **Emission Monitoring Protocol**

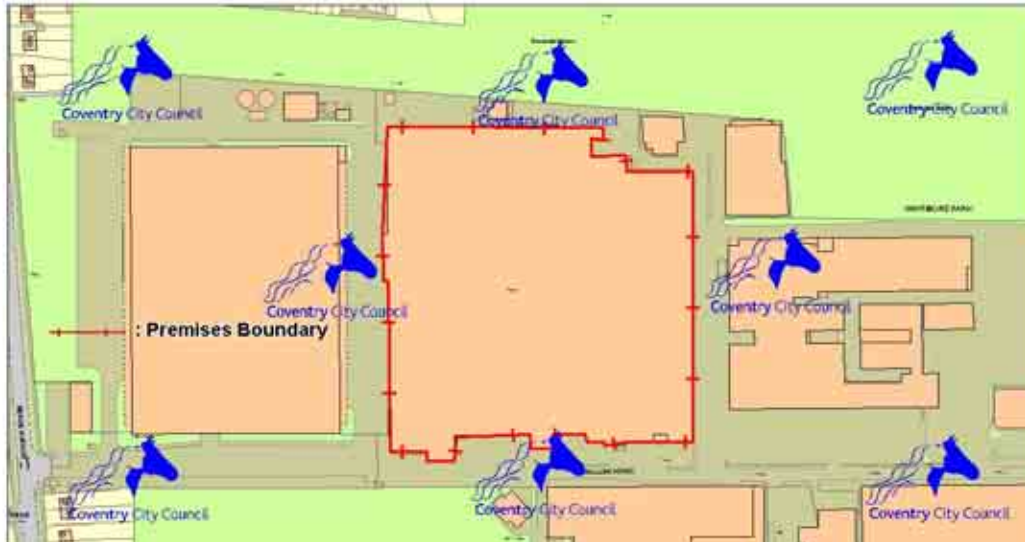
The documented procedure by which reliable and comparable results are obtained from measurements at source is known as a Protocol.

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/157/A Premises Boundary of Dunlop Aerospace Ltd.**



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

Tel: 024 7683 1832



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