



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

**PERMIT OF PROCESS**

**THIS IS TO CERTIFY** that the rubber conversion process

at: **DUNLOP BESTOBELL  
ASHBY ROAD, SHEPSHED, LEICESTERSHIRE, LE12 9EQ  
(Shown on the attached map, Figure 1/I30)**

**National Grid Ref: SK 476184**

has been duly permitted in accordance with Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 subject to the conditions outlined in this document.

**Name of Operator: Meggit PLC, Dunlop Aerospace – Trading as Dunlop Bestobell  
Registered Office: Atlantic house, Aviation Park West, Bournemouth International Airport,  
Christchurch, Dorset, BH23 6EW**

This Permit shall apply only to the premises occupied by the applicant, as specified and described in the Application for Permit submitted to the Borough of Charnwood. This Permit, consisting of twenty-six pages, shall be subject to replacement, variation or amendment, as may be considered appropriate by the Borough of Charnwood at any time, according to provisions of Regulations 12, 15, and 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000.

The conditions contained herein shall apply from the date of the Permit unless otherwise stated.

Signed on behalf of Charnwood borough Council

.....  
Beverly Green, Specialist Environmental Health Officer  
(the delegated officer for the purpose)

Dated 1 January 2008

Counter-signed.....

Directorate of Housing and Health, Environmental Health Southfields, Southfield Road, Loughborough LE11 2TX

## Introductory note

### *This introductory note does not form a part of the permit*

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No 1973), as amended, (“the PPC Regulations”) to operate an installation carrying out one or more of the activities listed in Part B to Schedule I of the PPC Regulations, to the extent authorised by the Permit:

Section 6.7B(a) –“the mixing, milling or blending of natural rubber or synthetic organic elastomers, using carbon black.”

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Note that the Permit requires the submission of certain information to the Local Authority (LA). In addition, the LA has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

Superseded Licences/Authorisations/Consents relating to this installation

<b>Holder</b>	<b>Reference Number</b>	<b>Date of Issue</b>
Dunlop Bestobell	030	28 June 2006

### **Public Registers**

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

**Variations to the Permit**

This Permit may be varied in the future (by the LA serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

**Surrender of the Permit**

Where the Operator intends to cease the operation of an installation (in whole or in part) The LA should be informed in writing, such notification must include the information specified in regulation 20(3) of the PPC regulations.

**Transfer of the Permit or part of the Permit**

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the LA considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit.

**Talking to us**

Please quote the Permit Number if you contact Charnwood Borough Council about this Permit. To give a Notification under Conditions 10 & 19 the Operator should use the telephone number 01509 634636 or any other number notified in writing to the Operator by Charnwood Borough Council for that purpose.

**Status Log**

<b>Detail</b>	<b>Date</b>	<b>Comment</b>
Deemed Application 130	Received 22 June 2007	Duly made
Permit determined	1 January 2008	

**End of Introductory Note.**

## DUNLOP BESTOBELL, ASHBY ROAD, SHEPSHED, LOUGHBOROUGH

### Process Description

The installation designs, develops and produces precision-engineered seals and sealing systems for a wide range of Aerospace and Industrial applications, using a variety of elastomer types which often require the incorporation of reinforcing fabrics, composites or metals.

The rubber compound is used to manufacture components to customers' requirements, often in small quantities (less than 10 items). The product range is extensive, ranging from "O" rings at 5mm to metal reinforced ducts, some in excess of 1500mm diameter.

Rubber compounds are produced on site, which are subsequently vulcanised into the finished articles and are based on a variety of natural and synthetic elastomers. These polymers are blended with other ingredients such as carbon black, silica fillers and metal oxide pigments to produce usage rubber compounds. Processing aids such as waxes and mineral oils may also be incorporated in the mixing. Organic sulphur compounds are also used as vulcanising agents.

Solvents are used on site for metal cleaning, producing rubber solutions for textile coating and other general cleaning and swabbing. The main solvents used are:

- Toluene
- Methyl ethyl ketone (MEK)
- Acetone

A detailed description of textile coating and each component manufacturing process can be found in part B2.1.1 to B2.1.14 of the Permit Application Document 64-C11100 dated June 2007.

A small vapour degreasing tank is used for cleaning of metal components and metal moulds. This uses 1-1-1 trichlorethane but is below the SED trigger threshold for surface cleaning.

There is also a small surface treatment facility comprising of a low concentration nitric acid/hydrofluoric etch, Alocrome coating and associated rinses. The volume of these tanks is also below the trigger threshold within Section 2.3 of the PPC regulations.

### **Principle Emissions**

The principal emissions are of volatile organic compounds (VOCs) and particulates from the preparation, application and curing of coatings. Significant solvent-containing process emissions arising from the site are extracted to a catalytic oxidiser abatement plant prior to being released to atmosphere via release point LEV S-1 (shown in Figure 2/130). Other emissions arising from the site relate to 2 central LEV extraction systems LEV S-2 and LEV S-3 and Stack A (boiler stack).

LEV S-2 is the release point to which all Building 5 post curing ovens are associated. The primary releases are hot air and vapour arising from the curing process, which may contain low concentrations of VOC. There is no associated abatement.

LEV S-3 is the release point to which the majority of Building 10 mounding preparations areas and post curing processes are associated. The primary releases will be shop air and very low concentrations of VOC and particulate matter. There is no associated abatement.

Other minor emission points on site include baghouses filtration plant, roof vents and minor local exhaust extraction systems. Activities involving the potential release of particulates are extracted to local filtration extraction equipment to prevent release to atmosphere.

The catalytic oxidiser is equipped with continuous emissions monitoring of CO (carbon monoxide) and temperature to ensure that the correct combustion conditions are maintained. CO is used as a surrogate measurement for VOC's.

The above named company is permitted to operate the activities and/or associated activities as specified in table I below: -

Table I

Activity listed in Schedule I of PPC regulations/ associated activity	Description of specified activity	Limits of specified activity
Section 6.7B(a) – the mixing, milling or blending of natural rubber or synthetic organic elastomers, using carbon black.	The storage of carbon black, solvents and materials containing solvents. The mixing of rubber. The making of rubber products.	Receipt of raw materials to the dispatch of finished products.
Section 7 Part B - Rubber conversion using over 15 tonnes of solvent.	mixing, milling, blending, calendaring, extrusion and vulcanisation of natural or synthetic rubber, and any ancillary operation for converting natural or synthetic rubber into a finished product.	Receipt of raw materials to the dispatch of finished products.
Section 6.4B(a (iv)) - coating of textiles with solvents.	The storage, application, drying or curing of coating material to a textile substrate	Receipt of raw materials to the dispatch of finished products.
Product drying	Drying ovens to remove solvent carrier	Product drying carried out in buildings 5,6 & 10 shown in figure 2/130 emissions to air via LEV S-2 and LEV S-3
The storage and disposal of waste solvents and solvent contaminated wastes.	Handling, storage and disposal of wastes from the installation.	From the generation of the wastes to their final disposal off site.
Control and thermal oxidation of VOC's for emission to air	Abatement of releases to air	Extraction and collection of waste gases and treatment in Catalytic oxidiser prior to release from LEV S- 1

Subject to compliance with the following conditions:

## Permit Conditions

### Emission Limits, monitoring and other provisions

- I. The emission limits in Table 2 below shall be complied with.

<b>Table 2 Non VOC Emission Limits</b>				
<b>Substance</b>	<b>Source</b>	<b>Emissions Limit</b>	<b>Monitoring Method</b>	<b>Monitoring Frequency</b>
Carbon monoxide	From oxidation plant	100 mg/Nm <sup>3</sup> as 30 minute mean for contained sources	In accordance with ISO 12039	Continuous monitoring and recording <b>Plus</b> Annual manual extractive testing
Particulate matter	Total particulate matter from the storage, handling or mixing of carbon black	10mg/Nm <sup>3</sup> as 30 minute mean for contained sources	In accordance with BS ISO 9096:2003, with averages taken over operating periods excluding start-up and shutdown	Annual Manual extractive testing.
	Total particulate matter from any other source, including the spray booth and curing ovens	50 mg/Nm <sup>3</sup> as 30 minute mean for contained sources		
Nitrogen oxides measured as nitrogen dioxide	From oxidation plant	100 mg / Nm <sup>3</sup> as 30 minute mean for contained sources	In accordance with ISO 10849	Annual Manual extractive testing.
Isocyanates	All process /activities using isocyanates	0.1 mg/Nm <sup>3</sup> as 30 minute mean for contained sources excluding particulate and expressed as NCO	In accordance with HSE occupational method MDHS 25/3 or Draft EPA method 207-1.	Manual extractive testing. Every three years

2. The VOC emission limits in Table 3 below shall be complied with.

<b>Table 3 VOC Emission Limits</b>				
<b>Substance</b>	<b>Source</b>	<b>Emission Limit</b>	<b>Fugitive Emission Values</b>	<b>Monitoring Frequency</b>
VOC in waste gases	Abatement plant	20 mg Carbon/Nm <sup>3</sup>	25% of solvent input (See SED Box 11 reproduced in Schedule A)	Continuous monitoring and recording <b>Plus</b> Annual manual extractive testing in accordance with EN 13526
	Other waste gases	20 mg Carbon/Nm <sup>3</sup>		

*Note: The reference conditions for emission limits in this section are: 273.15K, 101.3kPa, without correction for water vapour content, unless stated otherwise.*

3. The introduction of dilution air to achieve the emissions concentration limits specified in condition 1 and 2 above shall not be permitted.

**Solvent Management Plan**

4. The operator shall produce a solvent management plan that shall be updated annually. The Solvent Management Plan shall be produced using the definitions and calculations set out in clauses 5.8, 5.9 and 5.10 of PG 6/28 (04) reproduced in Schedule A of this permit. (Risk phrase solvents shall be recorded separately and not form part of this plan).

**Designated Risk Phrase Materials, Emission Limits and Conditions**

5. Designated Risk Phrase Materials used at the installation must be either replaced, controlled and or limited, as set out in Table 4 and Table 5 below:

Table 4 All Activities Using Designated Risk Phrase Materials		
Row	Designated Risk Phrase Materials with risk phrases R45, R46, R49, R60, R61	
1	<p>Requirements:</p> <ul style="list-style-type: none"> <li>• <b>Control</b> under contained conditions, as far as technically and economically feasible to safeguard public health and the environment; and</li> <li>• <b>Limit</b> – where the sum of the mass flows of all the discharges of all the compounds causing the risk phrase labelling is greater or equal to 10 g/h a limit of 2 mg/Nm<sup>3</sup> for the mass sum of the individual compounds shall apply;</li> </ul> <p>the substances identified in Permit Application Document 64-C11100 as:</p> <p>Triklone - R45 Degreasing of metal</p> <p>Tetrobond - R45 Adhesive</p> <p>Chemlock (402) - R45 Mixing adhesive</p> <p>- Primer used in tower spreader</p> <p>Dow Corning 1200 RTV - R60 &amp; R61</p> <p>- Shepshed hose</p>	<p>Monitoring / timescales</p> <ul style="list-style-type: none"> <li>• Immediately</li> </ul> <p>Annual manual extractive testing in accordance with EN 13649</p> <ul style="list-style-type: none"> <li>• Immediately</li> </ul>
<b>Halogenated VOC with risk phrase R40</b>		
2	<p>Requirements</p> <ul style="list-style-type: none"> <li>• <b>Control</b> under contained conditions as far as technically and economically feasible to safeguard public health and the environment;</li> </ul>	<p>Monitoring / timescales</p> <ul style="list-style-type: none"> <li>• Immediately</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Limit</b> – where the sum of the mass flows of all the discharges of all the compounds causing the risk phrase labelling is greater or equal to 100g/h, a limit value of 20 mg/Nm<sup>3</sup> for the mass sum of the individual compounds shall apply</li> </ul>	<p>Annual manual extractive testing in accordance with EN 13649</p> <ul style="list-style-type: none"> <li>• Immediately</li> </ul>
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### Other Provisions

#### **Monitoring, investigation and recording**

6. The operator shall keep a record (log book) of all inspections, tests and monitoring including non-continuous monitoring, inspections and visual assessments. Current records shall be kept on site and be available for inspection by an authorised officer of Charnwood Borough Council. Records shall be kept for at least two years.
7. The operator shall provide a list of key abatement plant and shall have a written plan for dealing with its failure.
8. The operator shall notify Charnwood Borough Council at least 7 days in advance of any periodic monitoring exercise to determine compliance with emission limit values. This shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.
9. The results of all non-continuous emission testing shall be forwarded to Charnwood Borough Council within 8 weeks of the completion of sampling.
10. In the event of any adverse results from any monitoring activity in relation to the limits specified in conditions 1 and 2 above, the Operator shall investigate as soon as the results are obtained/received. The Operator shall:
  - Identify the cause and take corrective action
  - Record (in the log book) as much detail as possible regarding the cause and extent of the problem
  - Record the action taken by the Operator to rectify the situation
  - Re-test to demonstrate compliance as soon as possible and
  - Notify Charnwood Borough Council.

**Visible and odorous emissions**

11. Emissions from any combustion processes shall in normal operation be free from visible smoke and in any case shall not exceed the equivalent of Ringelmann Shade I, as described in British Standard BS 2742 :1969.
12. All releases to air, other than condensed water vapour, shall be free from persistent visible emissions.
13. All emissions to air shall be free from droplets.
14. There shall be no offensive odour beyond the site boundary, as perceived by an authorised officer from Charnwood Borough Council

**Inspection of filtration plant**

15. Particulate emissions from weighing machines, and where necessary mixing vessels, shall be vented to bag filters, to meet the requirements of conditions I of this Permit.
16. Continuous monitoring equipment shall be inspected according to manufactures' recommendations to ensure their proper operation. Details of the inspection shall be kept in the logbook.
17. Bags containing carbon black shall be emptied using appropriate measures to minimise the emission of particulate matter into the air. Empty bags shall immediately be placed in a closed container.

**Abnormal events**

18. Where abnormal emissions, malfunctions or breakdown leading to significant escape of particulate matter, odour or fumes occur the Operator shall:
  - Investigate immediately and undertake corrective action
  - Adjust the process or activity to minimise those emissions and
  - Promptly record in the logbook (within one working day) the events and actions taken.

19. Charnwood Borough Council shall be informed immediately by telephone where:
- the emission is likely to have an effect on the local community
  - in the event of the failure of the catalytic oxidiser.
20. In cases where emissions are likely to cause an immediate danger to human health, the operation of the activity shall be suspended.

**Continuous monitoring VOC abated releases**

21. The Greenbank Catalytic Oxidation Plant shall be provided with continuous monitoring and recording for VOC expressed as total carbon excluding particulate matter to demonstrate adequate VOC destruction. After commissioning, continuous monitoring of carbon monoxide and incineration temperature shall be used as a surrogate measurement to demonstrate compliance.
22. All continuous monitoring readings shall be on display to appropriately trained staff.
23. All continuous monitoring instruments shall be fitted with audible and visual alarms, situated to warn the operator of abatement plant failure or malfunction.
24. The activation of alarms shall be automatically recorded.
25. All continuous monitoring equipment shall be checked for correct functioning and calibrated and maintained in accordance with the manufacturer's instructions. The results from the maintenance and calibration shall be recorded in the logbook and made available for inspection by an authorised officer of Charnwood Borough Council on request.
26. All new continuous monitoring equipment shall be designed for less than 5% downtime over any 3-month period.

**Calibration and Compliance Monitoring**

27. Calibration and compliance monitoring shall meet the following requirements as appropriate:
- No result shall exceed the emission concentration limit specified, except where either: -

- a) Data is obtained over at least 5 sampling hours in increments of 30 minutes or less, or
- b) At least 20 results are obtained where sampling time increments of more than 30 minutes are involved  
And in the case of a) or b)
- c) No daily mean of all 30 minutes mean emissions concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down)  
**and**
- d) No 30 minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operations (excluding start-up and shut-down).

Where continuous monitoring is carried out to demonstrate compliance with VOC emission limits:

- a) none of the averages over 24 hours of normal operation shall exceed the emission limit values, and
- b) none of the hourly averages shall exceed the emission limit values by more than a factor of 1.5 ( the hourly average of the 30-minute means value may be used to demonstrate compliance).

### **Sampling Provisions**

- 28. Adequate facilities for sampling shall be provided on vents and ducts and the sampling points shall be designed to comply with British or equivalent standards.

### **Control Techniques**

#### **VOC and odour control - storage**

- 29. Coatings containing VOC's (including thinners and cleaning solvents) shall be stored in closed storage containers.
- 30. All VOC storage containers shall be stored within bunded enclosed areas, except for point of use containers. The bunding shall be impervious, resistant to liquids and capable of holding 110% of the capacity of the largest stored container.

31. The receipt, handling and storage of organic solvents shall be carried out so as to minimise the emission of volatile organic compounds to air.

**VOC control - handling**

32. All mixing, emptying and transfer of coatings or raw materials containing VOC's shall be undertaken in covered or closed mixing vessels.
33. Exhaust ventilation from coating application zones shall be vented to the Greenbank Catalytic oxidiser

**VOC Control – cleaning (including surface cleaning)**

34. The operator shall periodically review (at least once every 2 years) cleaning operations at the installation to identify opportunities for reducing VOC emissions. The results of this review, justification for the choices made together with timescales to implement any changes identified, shall be submitted to Charnwood Borough Council.
35. The cleaning of plant and equipment shall be carried out in such a way that emissions of volatile organic compounds to air are prevented or controlled.
36. HVLP guns and application equipment shall be cleaned in a cold cleaning system which is lidded and provided with a solvent collection container to prevent the emission of volatile organic compounds in the air
37. Cleaning techniques such as water based (without mechanical, chemical or thermal enhancement) or organic solvents which are significantly less volatile should be used wherever practicable.
38. Where fixed equipment is cleaned *in situ*, it should be kept enclosed during the cleaning operation.
39. Where equipment is cleaned off-line, it should be cleaned in enclosed cleaning machines wherever possible. Enclosed cleaning systems should be sealed to prevent emissions whilst in operation, except purging at the end of the cleaning cycle. If this is not practicable, emissions should be contained and vented to suitable arrestment equipment to meet the requirements of 1 above.

40. Where manual cleaning is unavoidable: -
- i) Cleaning solvents should be kept in enclosed containers whilst not in active use.
  - ii) Wiping cloths or brushes should be either pre-impregnated or, using a piston type dispenser or similar device, be impregnated with cleaning solvent in a controlled manner.
  - iii) Used wiping cloths or brushes should be stored in enclosed containers pending recovery or disposal.
41. All metal degreasing operations using chlorinated organic solvent shall be carried out in the purpose built degreasing machine.

#### **VOC Control – Operational**

42. Devise and implement a programme to monitor and record the consumption of coatings/organic solvents against product produced, to identify ways of minimising the use of organic solvent/coatings.

#### **VOC Control-Waste**

43. All potentially odorous waste materials shall be stored in suitable enclosed containers.
44. Prior to disposal empty/nominally empty containers and drums shall be closed to minimise emissions. These containers shall be labelled, so that all that handle them are aware of their contents and hazardous properties.
45. Prior to disposal, used wipes or other items contaminated with organic solvent shall be placed in a suitably labelled metal bin fitted with a self-closing lid.
46. Used solvent and waste shall be recycled off site and copies of any receipts shall be kept for 3 years.

#### **General Control Techniques**

##### **Dust and spillage control**

47. All external spillages or significant deposits of particulate matter shall be cleaned immediately on detection using such methods as will minimise dissemination of dust
48. A supply of solvent containment and spillage equipment shall be readily available in all organic solvent handling areas.
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49. Spillages of VOC's or substances containing Isocyanates shall be cleaned up immediately using a suitable absorbent, non-flammable material.
50. Stocks of dusty or potentially dust materials shall be stored in such a manner as to prevent emissions of particulate matter to the air. All such materials shall be stored in covered containers or sealed bags.
51. Dry sweeping of dusty materials shall not be permitted. All significant deposits or spillages of particulate matter shall be removed as soon as reasonably practicable, using vacuum cleaning, wet methods, or such other suitable methods as will minimise dissemination of dust.
52. At least once per week in areas where carbon black is handled a cleaning programme shall be instigated.

### **Air Quality**

#### **Dispersion and dilution from stacks**

53. Flues and ductwork shall be adequately insulated to minimise the cooling of waste gases and prevent liquid condensation on internal surface.
54. Flues and ductwork shall be inspected and cleaned as necessary to prevent accumulation of materials.
55. Process stacks shall not be fitted with any restriction at the final opening such as a plate, cap or cowl. All discharge points should be vertically upwards
56. No alterations in height above ground level shall be made to the final discharge point of any chimney, vent or other process exhaust without the prior written agreement of the Local Authority.
57. No additional chimneys, vents or process exhausts which will increase emissions of solvent to atmosphere shall be provided without the written consent of Charnwood Borough Council.
58. No new materials with a designated risk phrase R45, R46, R49, R60 and R61 shall be introduced into this process/ activity without the prior notification and permission of Charnwood Borough Council

### **Management**

#### **Training**

59. Staff at all levels shall receive the necessary formal training and instructions in their duties relating to control of the process and emissions to air. Training shall include:
- Awareness of their responsibilities under this permit in dealing with conditions likely to give rise to VOC emissions, such as in the event of spillage;
  - Minimising emission on start up and shut down
  - Action to minimise emissions during abnormal conditions
60. A statement of training requirements for each operational post and a training record shall be kept for each person whose actions may have an impact on the environment. These documents shall be made available to an authorised officer of Charnwood Borough Council on request.

#### **Management techniques**

61. Effective preventative maintenance shall be employed on all plant, buildings and equipment concerned with the control of emissions to air. In particular:
- A Written maintenance and inspection programme shall be produced and implemented for the pollution control equipment, the dry backed spray booth and the vapour-degreasing tank. The programme shall be made available to an authorised officer of Charnwood Borough Council on request.
  - A written record of such maintenance shall be made available for inspection by an authorised officer of Charnwood Borough Council.
62. Essential spares and consumables for all arrestment plant shall be held on site when the supplier is not able to provide items from stock within one working day, so that plant breakdowns can be rectified rapidly.

#### **Appropriate management systems**

63. The activity shall operate in accordance with an Environmental Management System which has been certified to the International Environmental Management Standard

ISO 14001: 2004. This shall include a commitment to achieving compliance with the permit conditions and ensuring LAPC considerations are taken account of in the day-to-day running of the process. (A brief description of the EMS is given in Sections B2.4 and B2.6 of the Permit application Document 64-C11100).

**Upgrading**

64. The Operator shall complete the upgrading specified in Table 5 below by the date specified in that table, and shall send written notification of the date of completion of each requirement to Charnwood Borough Council within 14 days of the completion of each such requirement.

Table 5 Upgrading programme requirements		
Reference	Requirements	Monitoring /timescales
UPI	Designated risk phrase materials with risk phrases R45, R46, R49, R60, R61 shall be replaced, as set out below,	
	<p><b>Replace</b> as far as possible by less harmful substances or preparations:</p> <p>Designated Risk Phrase Materials identified in Permit Application Document 64-C11100 as:</p> <p>Triklone - R45 Degreasing of metal</p> <p>Tetrobond - R45 Adhesive</p> <p>Chemlock (402) - R45 Mixing adhesive</p> <p>- Primer used in tower spreader</p> <p>Dow Corning 1200 RTV - R60 &amp; R61</p> <p>- Shepshed hose</p>	<p>Within the shortest possible time and by the latest by the timescale submitted in the appraisal required and approved under <b>UP2</b>.</p>

<b>UP2</b>	A written appraisal shall be submitted to Charnwood Borough Council for approval detailing the feasibility of substituting the risk phrase substances listed under <b>UPI</b> above. The appraisal shall contain dates for the substitution of individual substances. Where no substitution is feasible the Operator shall provide justification for the continued use. The appraisal shall be implemented by the Operator from the date of approval by Charnwood Borough Council.	By 30 April 2008 and thereafter at 6 monthly intervals.
<b>UP3</b>	A written plan shall be submitted to Charnwood Borough Council for approval detailing the timescale for implementation of all required emission monitoring at the installation. The plan shall be implemented by the Operator from the date of approval by Charnwood Borough Council.	Within 1 months from the date of issue of this permit
<b>UP4</b>	A written plan shall be submitted to Charnwood Borough Council for approval detailing how fugitive emissions will be monitored to ensure compliance with condition 2 above. The plan shall be implemented by the Operator from the date of approval by Charnwood Borough Council	Within 1 month from the date of issue of this permit
<b>UP5</b>	Continuous monitoring and recording shall be provided to monitor the operation of all dust control equipment, including the silicone mixing area and plaster moulding area.	Within 6 months from the date of issue of this permit

**End of Conditions**

**Schedule A**

Determination of Solvent Consumption (reproduced from PG 6/28(04))

5.8 A determination of the organic solvent consumption, the total mass of organic solvent inputs minus any solvents sent for reuse/recovery off-site, should be made and submitted to Charnwood Borough Council annually, preferably to coincide with the operators stocktaking requirements, in the form of a mass balance in order to determine the annual actual consumption of organic solvent (c).

Where:  $C = I_1 - O_8$

$I_1$  Total quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity.

A calculation of the purchased organic solvent Input ( $I_1$ ) to the process/activity, is carried out by recording:

- (i) The mass of organic solvent contained in raw materials and preparations in the initial stock (IS) at the start of the accounting period; plus
- (ii) The mass of organic solvent contained in raw materials and preparations in the purchased stock (PS) during the accounting period.
- (iii) Minus the mass of organic solvent contained in raw materials and preparations in the final stock (FS) at the end of the accounting period.

Total Organic Solvent Input ( $I_1$ ) = IS + PS – FS

Solvent Management Plan

5.9 The Solvent Management Plan provides definitions and calculations to demonstrate compliance with the VOC requirements of this note. The use of the standard definitions and calculations also ensures consistency of VOC compliance across installations with an industrial sector.

5.10 The definitions provided must be used in all calculations relating to the Solvent Management Plan (SMP) (Figure 5.1).

- For SED installations using the emission and fugitive limits, the SMP should be used for determining the fugitive emissions (SED Box I 1). Once completed, it need not be done until the equipment is modified.
- For SED installations using the total emission limit values, the SMP should be used to determine the total emission and the organic solvent input annually (SED Box7)

- For process/activities using the reduction scheme, the SMP should be used to determine the actual emissions annually (SED Box 6)

### Definitions

The following definitions provide a framework for the mass balance calculations used in determining compliance.

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

**I<sub>1</sub>** The quantity of organic solvents, or their quantity in raw materials and preparations purchased which are used as input into the process/activity (including organic solvents used in the cleaning of equipment, but not those used for the cleaning of the products).

**I<sub>2</sub>** The quantity of organic solvents or their quantity in raw materials and preparations 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**).

**O<sub>1</sub>** Emissions in waste gases.

**O<sub>2</sub>** Organic solvents lost in water, if appropriate taking into account waste water treatment when calculation **O<sub>5</sub>**.

**O<sub>3</sub>** The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.

**O<sub>4</sub>** 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.

**O<sub>5</sub>** Organic solvents and/or 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 **O<sub>6</sub>**, **O<sub>7</sub>** or **O<sub>8</sub>**)

**O<sub>6</sub>** Is Organic solvent contained in collected waste

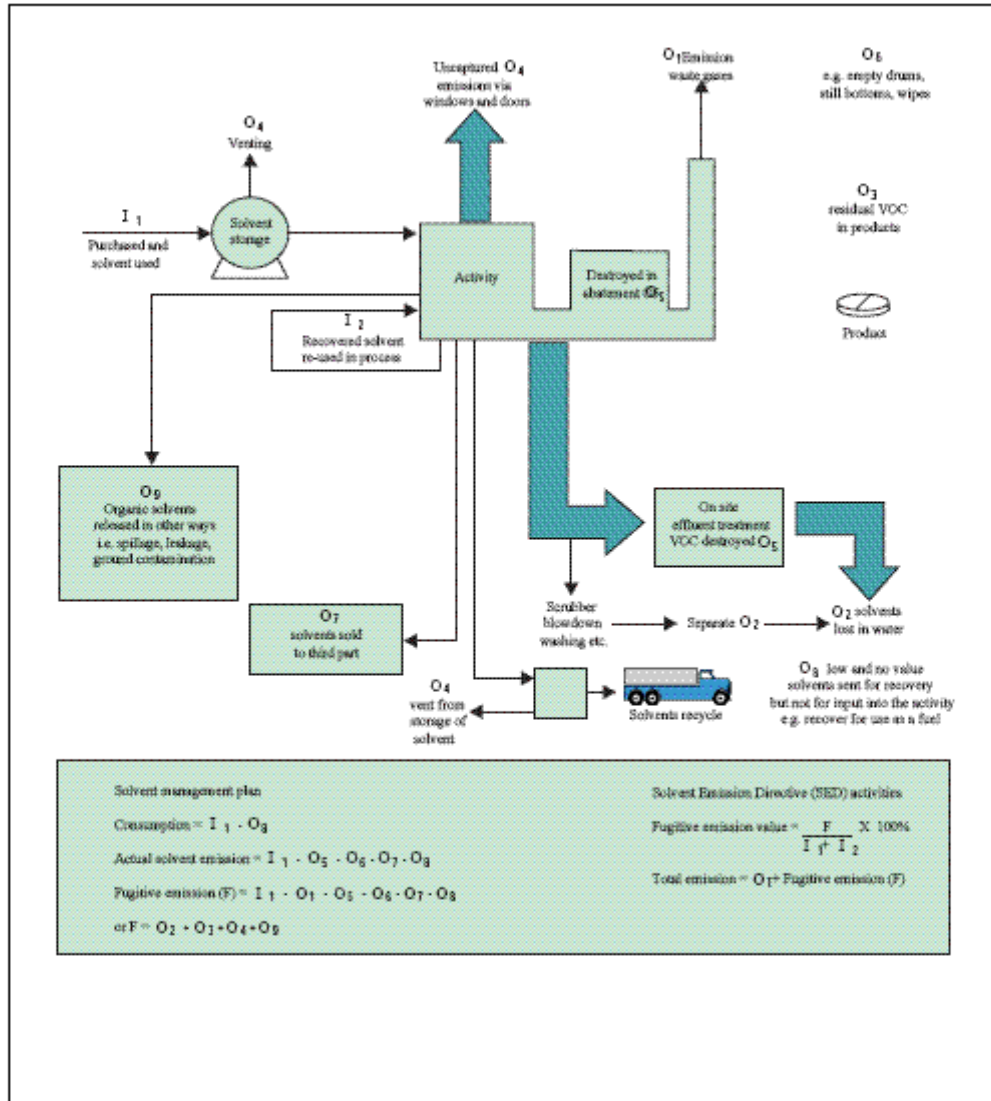
**O<sub>7</sub>** Is Organic solvent contained in preparations, which are sold or are intended to be sold as commercially valuable product.

○<sub>8</sub> Is Organic solvent contained in preparations recovered for reuse but not as input into the process/activity, as long as not counted under ○<sub>7</sub> .

○<sub>9</sub> Organic solvents released in other ways.

LAPPC and LAPC

Figure 5.1: Solvent Management Plan Inputs and Outputs



**Determining Fugitive Emissions (SED Box 11)****Activities Not Using the Reduction Scheme**

Determining fugitive emissions using the Solvent Management Plan

To demonstrate compliance with fugitive emission values in SED Box 5 and SED Box 7 the operator must determine the fugitive emissions (F) from the installation using the following:

$$F = I1 - O1 - O5 - O6 - O7 - O8$$

Or

$$F = O2 + O3 + O4 + O9$$

This quantity can be determined by direct measurement of the quantities. Alternatively, an equivalent calculation can be made by other means, for instance by using the capture efficiency of the process.

The Fugitive Emission value as a percentage of the Solvent Input (I) is determined by

$$\text{Fugitive Emission Value} = 100 \times F/I$$

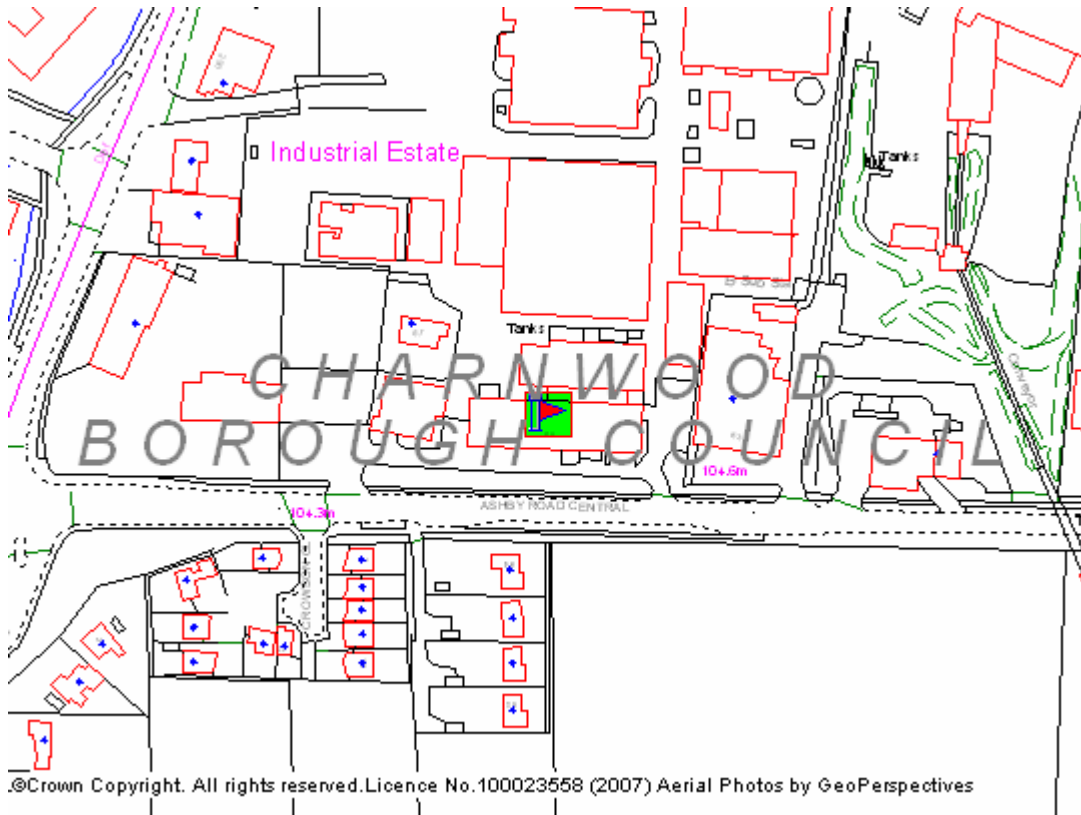
Where the Solvent Input (I) =  $I_1 + I_2$  (determined as part of the Solvent Management Plan)

Fugitive emission values must be determined for each installation, and must be repeated when any equipment modification is carried out.

Site Location

Figure I/130

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Site Layout and Location of Stacks

Figure 2/130

## EXPLANATORY NOTES

These notes do not comprise part of Permit Serial No.130 but contain guidance relevant to the Permit.

1. You should note that Regulation 12(10) of the Regulations provides that in relation to any aspect of the process not regulated by conditions 1 to 62 the best available techniques ('BAT') shall be used for the purpose of preventing or, where that is not practicable, reducing emissions into the air.

Section 3(7) of the Regulations describes 'BAT' as meaning 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 that is not practicable, generally to reduce emissions and the impact on the environment as a whole.

2. This Permit is issued under the Pollution Prevention and Control (England and Wales) Regulations 2000. The responsibility you have under legislation for Health, Safety and Welfare in the workplace remains in force. In addition, the Permit does not relieve you of your obligations to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency Building Regulations approval, or a Waste Disposal Licence.
3. Any proposed 'change in operation' in the process (within the meaning of Regulation 2(1)) shall be notified to Charnwood Borough Council as required by Section 16(1) of the Regulations.
4. Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for the Environment, Food and Rural Affairs. Appeals must be made in accordance with the requirements of Regulation 27 and Schedule 8 of the PPC regulations. The address is as follows:

The Planning Inspectorate  
Environmental Appeals Administration  
Room 4/19 Eagle Wing  
Temple Quay House, 2 The Square,  
Temple Quay, Bristol, SI 6PN

**Please note:** an appeal brought under paragraph (1) (c) or (d) in relation to the conditions in a permit will not suspend the effect of the conditions appealed against: the conditions must still be complied with.

In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority either to vary any of these other conditions or to add new conditions.