Permit with introductory note

**Environmental Permitting (England and Wales)
Regulations 2010**

Installation address

**Conqueror Industries Limited
Royston Trading Estate
Units 3, 4, 7, 8 & 9, South Close
Royston
Hertfordshire
SG8 5UH**

Permit Reference: EPA/00712/03/P3

Contact Details:

Correspondence Address:
North Hertfordshire District Council
PO Box 480
M33 0DE

Office Address
North Hertfordshire District Council
Council offices
Gernon Road
Letchworth Garden City
Hertfordshire
SG6 3JF

Tel: 01462 474263
Fax: 01462474546

www.north-herts.gov.uk

E-mail: env.health@north-herts.gov.uk

Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I. 2010 No. 675) (as Amended) ("the EP Regulations") to operate an installation carrying out one or more of the activities listed in Part B to Schedule 1 of those Regulations, to the extent authorised by the Permit.

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 specific conditions are subject to the Best Available Techniques condition placed in the permit, that the Operator shall use the best available techniques for preventing or, where that is not practical, reducing emissions from the installation.

Please note techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Brief description of the installation regulated by this permit

There are two activities listed under Schedule 1, Part 2 Activities at this installation: **Surface Cleaning** (as prescribed by Section 7) and **Powder Coating** (as prescribed by Section 6.4 & 7) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended), utilising over 2 tonnes organic solvent per annum for degreasing and etching, epoxy and polyester based powder coatings. Powder coating is applied in either an online spray booth or within airflow water wash spray booths. Solvent base (wet) coating is undertaken with solvent consumption between 5-15 tonnes per annum. Coated items are stoved in either a tunnel oven, or within box ovens, all operating on gas.

Technically Associated Activity:
1. A four stage zinc phosphate and 3 stage iron phosphate degreaser/etcher is used.

Process Guidance Notes covering this installation: PG 6/45(11) Surface Cleaning, PG 6/23(11) Coating of Metal & Plastic Processes & PG 6/31(04) Powder Coating Including Sherardizing and Vitreous Enamelling Dry

Superseded Licences/Consents/Permits relating to this installation		
Holder	**Reference Number**	**Date of Issue**
Conqueror Industries Limited	**4/655/V3**	**10th May 2001**
Conqueror Industries Limited	**4/655/V3/P1**	**2003**
Conqueror Industries Limited	**4/655/16/V3/P2**	**6th June 2008**
Conqueror Industries Limited	**EPA/00712/03/P3**	**18th August 2011**

Confidentiality

The Permit requires the Operator to provide information to North Hertfordshire District Council. The Council will place the information onto the public registers in accordance with the requirements of the EP Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the North Hertfordshire District Council to have such information withheld from the register as provided in the EP Regulations. To enable North Hertfordshire District Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

Your Attention is drawn to the Variation Notification Procedure condition in the permit. This Permit may be varied in the future. If at any time the activity or any aspect of the activity regulated by the following conditions changes such that the conditions no longer reflect the activity and require alteration, the Regulator should be contacted.

Surrender of the permit

Where an Operator intends to cease the operation of an installation (in whole or in part) the Regulator should be informed in writing, such notification must include the information specified in regulation 24, or in accordance with Regulation 25 of the EP Regulations for Permits to which Regulation 24 does not apply.

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 the Authority 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.

Responsibility under workplace health and safety legislation

This Permit is given in relation to the requirements of the EP regulations. It must not be taken to replace any responsibilities you may have under Workplace Health and Safety legislation.

Appeal against permit conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Appropriate Authority, (Secretary of State for the Environment, Food and Rural Affairs, in England and the Welsh Ministers in Wales) Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations.

Appeals should be received by the Secretary of State for Environment, Food and Rural Affairs or the Welsh Ministers at the following addresses:

The Planning Inspectorate
Environment Team, Major and Specialist Casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN

Or for appeals in Wales:

The Planning Inspectorate
Crown Buildings
Cathays Park
CARDIFF
CF10 3NQ

Please Note

An appeal bought under Regulation 31 (1) (b) and Schedule 6, 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.

End of introductory note

Permit issued under the Environmental Permitting (England and Wales) Regulations 2010

Permit

Permit Reference: EPA/00712/03/P3

North Hertfordshire District Council (the Regulator) in exercise of its powers under Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2010 (S.I. 2010 No. 675) (as Amended) hereby permits:

Conqueror Industries Limited ("the Operator"),

Whose registered office is:

Manufactory House
Bell Lane
Hertford
Hertfordshire
SG14 1BP

Company No. 2666823

To operate an installation at:

Conqueror Industries Limited
Royston Trading Estate
Units 3,4,7,8 and 9 South Close
Royston
Hertfordshire
SG8 5UH

to the extent authorised by and subject to the conditions of this Permit and within the boundary shown identified in Condition 3.2.

Signed

David Carr
Authorised to sign on behalf of
North Hertfordshire District Council

Dated

CONDITIONS

EXTENT AND LIMIT OF THE INSTALLATION

1. Variation Notification Procedure

1.1 If the Operator proposes to make a change in operation of the installation, he must, at least 14 days before making the change, notify the Regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

2. Best Available Technique

2.1 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.

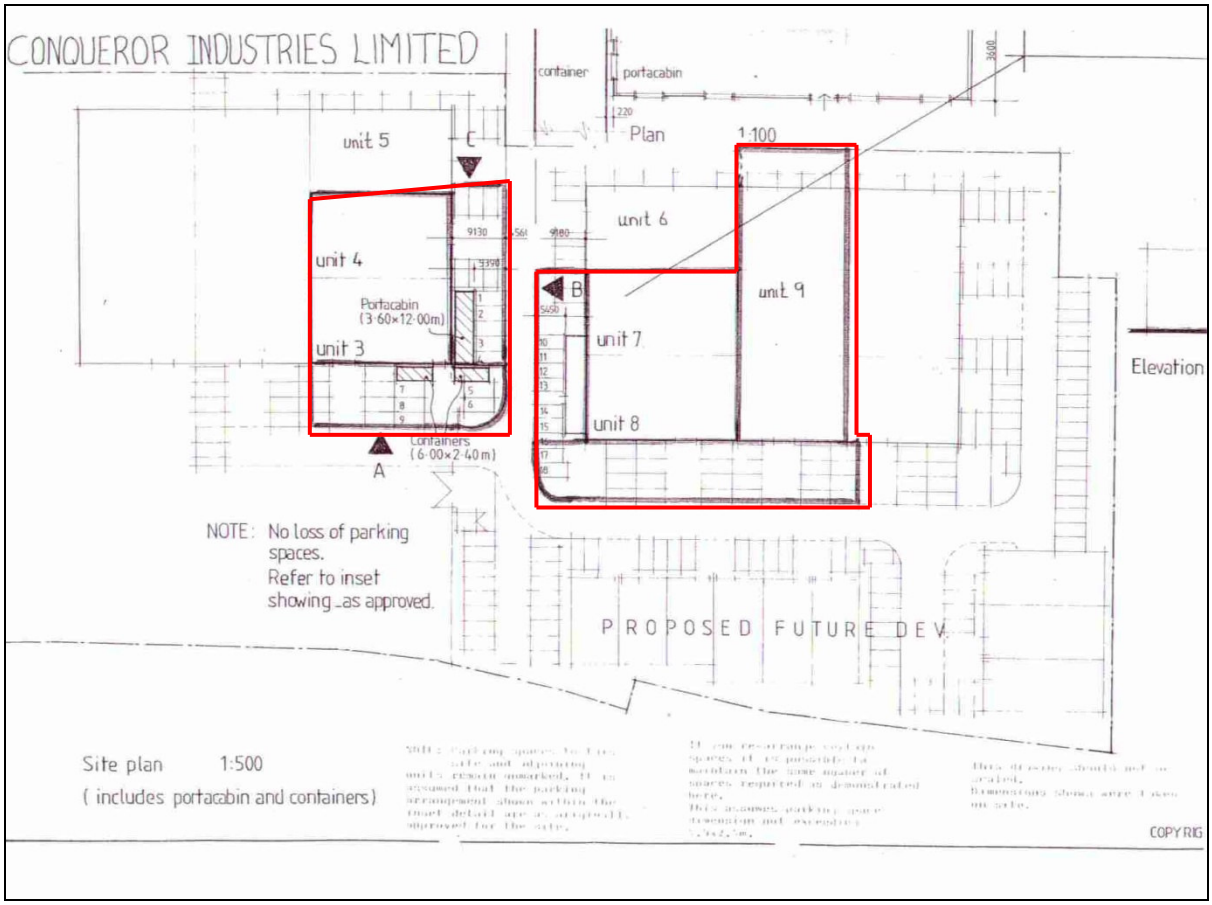
3. The Installation and Activities

3.1 The Operator is authorised to carry out the activities and/or the associated activities specified in Table A.

TABLE A

Activities under Schedule 1 of the Regulations/Associated Activity	Description of specified activity	Schedule 1 activity Reference (if Applicable)	Limits of specified Activity
Storage and Handling of raw materials	Storage of powder coatings, paints and solvents	Directly associated activity	Receipt and storage of raw materials.
Surface Cleaning	Preparation of components for powder/ coating activities using solvent based degreasers	Section 7, SED activity	Preparation activities within the buildings outlined in condition 3.2 only
Preparation activities	Preparation of components for powder /coating activities including water based degreasing	Directly associated activity	Preparation activities within the buildings outlined in condition 3.2 only.
Coating activity using powder and solvent based coatings	Coating of components.	Section 6.4 & 7	Spraying within the spray booths listed in Schedule 'C' only.
Storage and handling of solid and liquid wastes	Storage of waste solvents and paint including recycling of solvent.	Directly associated activity	From separation of waste to dispatch from installation.

3.2 The activities permitted under these conditions shall not extend beyond the boundary of the site shown in red.



4. Non VOC Abatement Reduction Scheme, Emission limits, VOC Fugitive Emission Limits Monitoring and other provisions

4.1 The emission limits in Table B below shall be complied with.

TABLE B NON VOC EMISSION LIMITS				
Substance	**Source**	**Emission limits/provisions**	**Type of monitoring**	**Monitoring frequency**
Particulate matter	Spray-booths	50mg/Nm^3 as 15 minute mean for contained sources	Manual extractive or performance guarantee	Where new equipment or filtration medium is introduced.
	Powder coating abatement plant where venting externally	10mg/Nm^3 as 15 minute mean for contained sources	Manual extractive or performance guarantee	Where new equipment or filtration medium is introduced.

4.2 The emission limits for VOC surface cleaning in Table C below shall be complied with.

TABLE C WASTE GAS AND FUGITIVE EMISSION LIMITS AND REQUIREMENTS			
Activity	**Emission Limit/Requirement**	**Fugitive Emission Values**	**Monitoring**
Surface Cleaning consumption 2-10 tonnes of any VOC	VOC expressed as total mass of organic carbon		Unabated releases: Single Annual manual extractive testing to be carried out before the 1st July 2012
All ducted waste gases	75mgCarbon/Nm^3	20% of solvent input	
NB. Emission limits do not apply to individual organic solvent cleaning & degreasing solutions which contain < 30% VOC by weight			

Reduction Scheme (No VOC Abatement)

4.3 The Operator shall produce an Emission Reduction Scheme to achieve compliance with Clauses 4.5, 4.6, and 4.7 of PG 6/23(11) for compliance with the powder/coating activity (see Schedule A).

4.4 The installation shall comply with the Target Emission Values for powder/coating activity in Table D below. The "Target Emission" shall be determined in accordance with the "Reduction Scheme" detailed in Schedule A to this Permit.

Table D Target Emission Values (consumption below 15 tonnes)	
Where more than 5 tonnes per annum are used in a coating activity (SED activity)	**Where less than 5 tonnes per annum of solvent is used in a coating activity (Non SED activity)**
Total mass of solids x 0.6	Total mass of solids x 1.6

Compliance with Reduction Scheme

4.5 The annual actual solvent emission determined from the Solvent Management Plan shall be less than or equal to the Target Emission.

Solvent Management Plan

4.6 The Operator shall produce a Solvent Management Plan that shall be updated annually. A Solvent Management Plan shall be completed for:

4.6.1 The powder coating activity

4.6.2 The solvent based coating activity

4.6.3 The surface cleaning activity (for fugitive emissions, see Condition 4.2)

The Solvent Management Plan shall be produced using the definitions and calculations set out in Clauses 4.10, 4.11, and 4.12, and Figure 4.1 of PG 6/23(11) reproduced in Schedule B to this Permit.

Other provisions

Monitoring, investigation and recording

4.7 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 the Regulator. Records shall be kept for at least two years.

4.8 A written plan for the maintenance and inspection of the wet backed spray booths (powder coating) and the dry backed booth (solvent coating), the conveyor oven, the box ovens, and the internally venting powder coating system, shall be produced and implemented. This shall as a minimum include:

a. the level of water in the water tanks located to the bottom of the spray booths checked daily for sufficiency prior to the commencement of spraying operations.

b. the waterfall back panels to the powder spray booths shall be checked daily for an effective water curtain, spraying shall not commence until an effective curtain is achieved.

The reservoirs to the booths shall be cleaned out and overhauled at least every four months.

Visible and odorous emissions

4.9 Emissions from any combustion process shall be free from visible smoke in normal operation and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in BS2742:2009.

4.10 All releases to air, other than condensed water vapour, should be free from persistent visible emissions.

4.11 All emissions to air shall be free from droplets.

4.12 There shall be no offensive odour beyond the site boundary, as perceived by the Regulator.

4.13 Powder coatings containing chlorinated compounds shall not be utilised without written permission of the Regulator.

Abnormal events

4.14 Where abnormal emissions, malfunctions or breakdowns leading to abnormal emission occur the Operator shall;

a: investigate and undertake corrective action immediately
b: adjust the process or activity to minimise those emissions; and
c: promptly record (within one working day) the events and actions taken

4.15 The Regulator should be informed without delay, whether or not there is related monitoring showing an adverse result:

a: if there is an emission that is likely to have an effect on the local community; or
b: in the event of the failure of key arrestment plant, for example, bag filtration plant or scrubber units

5. Control Techniques

5.1 The box element filters to the wet coating booth shall be checked weekly for fit and particulate build up, the filters shall be replaced as determined by that inspection.

5.2 The tunnel and box oven curing temperature shall not exceed 210^{o}C. The temperature of the oven shall be checked weekly prior to stoving commencing.

5.3 All bag filtration system shall be inspected once a month and where defects are detected, corrective action shall be taken immediately. A record of this inspection shall be made.

5.4 A record shall be kept of all powder coating material, and organic solvent used. The records shall be made available to the Regulator on request.

5.5 Dry powders or other materials likely to give rise to emissions of particulate matter, shall remain within sealed bags or containers within the paint store at all times unless being utilised.

5.6 All operations likely to give rise to odours, fume or particulate matter, including booth cleaning, shall not be undertaken without the extraction systems provided, fitted and working.

VOC and odour control; storage

5.7 Coatings containing VOC's (including thinners and cleaning solvents) shall be stored in closed storage containers.

5.8 All measures should be taken to minimise VOC emissions during mixing, i.e. the use of covered or closed mixing vessels.

5.9 All VOC storage containers shall be stored within bunded enclosed areas, except for point of use containers.

a: bunding must be impervious and resistant to the liquids in storage; and
b: be capable of holding 110% of the capacity of the largest storage tank

VOC control; operational

5.10 The oven temperature of the Ercon tunnel curings ovens shall be set to 200^{O}C.

VOC control; cleaning

5.11 The application of cleaning solvents onto cleaning cloths shall be by piston type dispenser, wash bottle with nozzled tube, or pre-impregnated wipes from an enclosed container used.

5.12 Cleaning operations involving organic solvents should be periodically reviewed, normally at least every two years to identify opportunities for reducing VOC emissions (e.g. cleaning steps that can be eliminated or alternative cleaning methods). The Regulator should be provided with a report on the conclusions of the review.

VOC control; waste

5.13 Drums shall be kept sealed unless opened for dispensing solvent or receiving waste solvent.

5.14 Empty paint tins shall be lidded or drained and dried.

5.15 Dirty solvent and waste paint shall be recycled on or off site and copies of any receipts shall be kept for 3 years.

5.16 Prior to disposal, empty drums and containers contaminated with organic solvent should be closed to minimise emissions from residues during storage prior to disposal and labelled, so that all those handling them are aware of their contents and hazardous properties.

5.17 Prior to disposal used wipes and other items contaminated with organic solvent should be placed in a suitably labelled metal bin fitted with a self-closing lid.

Note: from a health and safety point of view it is advised that bins should be emptied at least daily, as they not only present a fire hazard, they may also undergo spontaneous combustion. For materials that may undergo spontaneous combustion special bins that allow air to circulate beneath them and around them to aid cooling are advised or other bins specifically designed for this purpose.

General Control Techniques

Dust and spillage control

5.18 Suitable organic solvent containment and spillage equipment shall be available at the spray-booths and solvent stores.

Air Quality

Dispersion and dilution from stack

5.19 The discharge height of the stacks serving the spray-booths shall be 3 metres above the roof ridge.

5.20 The efflux velocities for the exhausts to the water wash spray-booths shall be less than $9m^3/s$.

5.21 The discharge exhausts fitted to the spray-booths shall discharge vertically upwards without any restriction (such as a cap or cowl).

6.0 Management

Appropriate management systems

6.1 Effective preventative maintenance shall be employed on all plant and equipment concerned with the control of emissions to air. All aspects of the process including all plant, buildings and the equipment concerned with the control of emissions to air shall be maintained. A record of maintenance undertaken shall be kept. The maintenance programme and records shall be made available to the Regulator on request.

6.2 Either essential spares and consumables shall be held for all arrestment plant, or alternatively,

1) a service contract for the arrestment plant, which includes a priority attendance requirement for arrestment plant failure, shall be held with a suitable contractor.
2) a mobile service and repair engineer carrying essential spares and consumables is employed by the Company.

7.0 Training

7.1 Staff at all levels shall receive the necessary training and instruction in their duties relating to the control of the process emissions to air. Training shall include;

a. Awareness of their responsibilities under the permit,
b. Minimising emissions on start up and shutdown,
c. Action to minimise emissions during abnormal conditions.

7.2 The Operator should maintain a statement of training requirements for each post with the above mentioned functions (condition 6.1) and keep a record of the training received by each person. These documents should be made available to the Regulator on request.

End of Permit Conditions

SCHEDULE A (Reproduced from PG6/23(11))

Solvent Reduction Scheme

4.5 The Reduction Scheme is the preferred method of preventing and minimising emissions of VOC, using non-abatement techniques such as:

- water borne coatings (low organic solvent content)
- higher solids content coatings
- powder coatings
- organic solvent free liquid coatings
- radiation cured coatings (for example, ultra violet and electron beam).

4.6 An Operator may choose to use the Reduction Scheme for an installation to achieve emission reductions to a **"Target Emission"** equivalent to those which would have been achieved if the concentration emission limits had been applied.

The following scheme should operate for installations for which a constant solid content of product can be assumed and used to define the reference point for emission reductions.

The Operator should forward an emission reduction plan, which includes in particular:

- mechanisms to decrease in the average solvent content of the total input; **and/or**
- systems to increase efficiency in the use of solids to achieve a reduction of the total emissions from the installation.

The Target Emission from an installation should be calculated by multiplying the total mass of solids in the quantity of coatings used in a year with the relevant figure given in **Table 7** below. In determining the total mass of solids:

solids are all materials in coatings that become solid as a result of curing, polymerisation, or the evaporation of the water or solvent (usually available from the supplier in g/l or non-volatile % mass by weight*), and

all ingredients other than water and organic solvents should be assumed to form part of the solid coating.

in cases of doubt, the reference standard for the determination of non-volatile % mass by weight is BS EN ISO 3251 (also numbered BS 3900: B18). The test conditions may need to be adjusted for the particular conditions of use or when assessing chemically or radiation cured coatings, where otherwise volatile components react to form part of the dry solid coating.

Table 7: Reduction scheme: Target emission figures

Coating activity	5-15 tonnes solvent consumption	Total mass of solids x 0.6
Over 15 tonnes		Total mass of solids x 0.37

4.7 Compliance with Reduction Scheme is achieved if the annual actual solvent emission determined from the Solvent Management Plan is less than or equal to the Target Emission.

Where the annual actual solvent emission = I1-O8-O7-O6 (-O5 if abatement has been used). See paragraph 4.12 below.

4.8 The flexibility inherent in this compliance route should not be taken to encourage:

- the replacement of a low or no organic solvent coating system with a conventional high organic solvent coating system, or
- the introduction of such a conventional high organic solvent coating system into a process/activity or
- the introduction of such a conventional high organic solvent coating system onto a product where it was not in use before, or
- the 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.

Regulators should seek prior notification of any proposal to introduce such systems, which should include reasons why lower organic solvent systems are not considered technically appropriate or practicable.

SCHEDULE B

Determination of Solvent Consumption

4.9 Construction of inventories of materials consumed and disposed of may involve the identification of individual organic solvents, or solids. This may give rise to an issue of commercial confidentiality. Information supplied must be placed on the public register, unless exclusion has been granted on the grounds of commercial confidentiality or national security. (Further information can be found in the appropriate chapter of the relevant General Guidance Manual).

4.10 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 the Regulator annually, preferably to coincide with the Operators stocktaking requirements. This should be in the form of a mass balance in order to determine the annual actual consumption of organic solvent (C):

Where: C = I1- O8 (See Definitions, paragraph 4.12, below).

Solvent Management Plan

4.11 Operators buy solvents to replace those lost during the process or included in the product. There are both environmental and cost savings from reducing the losses. The Solvent Emissions Directive requires a SMP to be produced to determine fugitive emissions (SED Box 5), identify future reduction options and give the public access to information about solvent consumption etc.

4.12 The SED provides guidance on what constitutes a solvent input and an output. This can be described more simply as needing data on:

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

There is guidance on the Business Link website about solvent management

The definitions in Annex III of the SED are as follows and are shown diagrammatically in Figure 4.1 (reproduced from PG6/45(11):

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 (including organic solvents used in the cleaning of equipment, but not those used for the cleaning of the products).

I2 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.

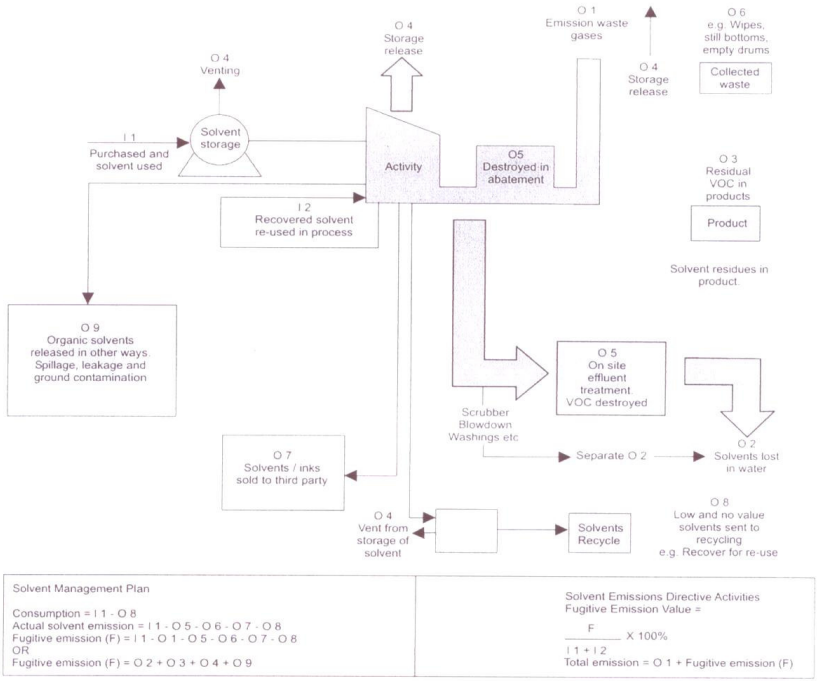
O7 Organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product.

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

Note: The requirements of conditions 4.3, 4.5 (emission reduction scheme) and 4.6 (solvent management plan) can be mostly complied with by completing annually the Determination of Solvent Consumption worksheet at the end of the permit.

Figure 4.1: Solvent Management Plan Inputs and Outputs



Schedule C

Schedule C	
Plant Description	**Location on Site Plan**
Airflow box oven	Unit 3
Airflow 3.3m water-wash spray booth	Unit 3
Airflow 6.6m water-wash spray booth	Unit 3
Airflow degreasing plant	Unit 3
Ballard Camelback oven gas fired	Unit 4
AEW Box oven (electric)	Unit 4
6 x Airflow water-wash 1.6 m spray booth	Unit 4
1 x RDM 1.6m dry-back spray booth	Unit 4
2 xGema Volstatic PGCI electrostatic Powder Unit	Unit 7
1 x Airflow 8mx 3m x3m Box oven gas fired	Unit 7
1 x 6.6m Airflow water wash spray booth	Unit 7
1 x 3.3m Airflow water wash spray booth	Unit 7
1 x IFS (Midlands) Powder coating plant inc 1 double pass gas forced air oven	Unit 8
1 x automatic powder coat plant	Unit 8
1 x 3 stage phosphate wash and line dry off tunnel oven	Unit 9
1 x 6.5m spray booth	Unit 9
1 x 8m x 3m x 3m Box oven gas fired	Unit 9

Determination of Solvent Consumption, work sheet for the Coating of Metal and Plastic PG6/23(04)

Solvent Management Plan		
Installation and address	**For year (provide dates for accounting period)**	**Name and position of respondent**
consumption of organic solvent (C) where C=I1-O8	Note- all data should be added in kilogrammes	Contact Tel No.

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

i)The mass of organic solvent contained in coatings, diluents and cleaners in the initial stock (IS)at the start of the accounting period.(In kg)	ii)The mass of organic solvent contained in coatings, diluents and cleaners in the purchased stock (PS)during the accounting period.(In kg)	iii)minus the mass of organic solvent contained in coatings, diluents and cleaners in the final stock (FS)at the end of the accounting period.(in kg)

Total Organic Solvent Input (I_1)= IS+PS-FS (In kg)	
Organic solvents contained in preparations recovered for reuse (ie. solvent taken away by recycling company) (but not as input into the process/activity) (O_8) (In kg)	
Actual consumption of organic solvent =	
Organic solvents contained in collected solid waste (ie. solvent remaining in tins/on waste rags) (O_6)	
Annual actual solvent emission (I_1-O_8-O_6)	
Total mass of solids used (everything in the coatings except solvent and water)	

Site compliant by 2005?	Is the total mass of solids x 0.9 equal to or more than the Annual actual solvent emission?
Site compliant from 2007?	Is the total mass of solids x 0.6 equal to or more than the Annual actual solvent emission?

Produced by Martin Cranfield Associates