

PERMIT NO. 038



**POLLUTION PREVENTION AND CONTROL ACT 1999
 ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2007**

PERMIT OF PROCESS

THIS IS TO CERTIFY THAT the coating of metals

at: **DCE DONALDSON LTD
 HUMBERSTONE LANE, THURMASTON, LEICESTERSHIRE, LE4 8HP**

National Grid Ref: SK 614084

has been duly permitted in accordance with Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2007 subject to the conditions outlined in this document.

**Name of Operator: DCE DONALDSON LTD
 Registered Office HUMBERSTONE LANE, THURMASTON, LEICESTERSHIRE. LE4 8HP**

This Permit shall apply only to the premises occupied by the applicant, as specified and described in the Application for Permit submitted to Charnwood Borough Council. This Permit, consisting of twenty-one 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, 18, 20, and 34 of the Environmental Permitting (England and Wales) Regulations 2007.

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

Signed on behalf of Charnwood Borough Council

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

Dated 1 March 2010

Counter-signed.....

Directorate of Housing and Health, Environmental Protection, 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 13(1) of the Environmental Permitting (England and Wales) Regulations 2007 (S.I. 2007/ 3538), as amended, (“the EP Regulations”) to operate an installation carrying out one or more of the activities listed in Part 2 of Schedule I of the EP Regulations, to the extent authorised by the Permit:

Section 6.4, Part B

"Any process for applying to a substrate, or drying or curing after such application, printing ink or paint or any other coating material as, or in the course of, a manufacturing activity, where the process may result in the release into the air of particulate matter or of any VOC and is likely to involve the use in any period of 12 months of 5 tonnes or more of organic solvents”.

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 some Waste Disposal Licences.

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 60(2) EP Regulations provided that it acts reasonably.

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with Requirement 46(1) EP 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

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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 24 or Regulation 25 and Part 1 of Schedule 5 of the EP Regulations.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, 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 Condition 24 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

<i>Detail</i>	<i>Date</i>	<i>Comment</i>
Permit issued	21 October 1993	
Variation Notice	15 March 2006	Draft only
Variation Notice	1 March 2010	Consolidated Permit issued

Process Description

The purpose of the process is to coat steel components and finished sheet steel cabinets with paint. All components go through an 8-stage pre-treatment using water-based chemical treatments, then pass on to a four-stage painting process. Primary processing is by full immersion in a series of tanks, and then the products are subject to a finishing procedure. The whole process can be broadly divided into 5 main areas: pre-treatment, primer painting, stoving, finish painting and drying.

Pre-Treatment

The 8-stage zinc-phosphating process involves the parts being dipped in turn into the following chemical tanks:-

- A1 Alkali degreasing tank 1 – based on sodium hydroxide heated to 65°C
- A2 Alkali degreasing tank 2 – sodium hydroxide heated to 65°C.
- A3 Cold water rinse

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- A4 Repeat cold water rinse
- A5 Zinc phosphate tank - phosphoric acid at 60°C.
- A6 Cold water rinse
- A7 Repeat cold water rinse
- A8 De-mineralised water wash

Primer-Painting

The four stage primer painting process involves:-

- B1 Electrophoretic painting - A water based epoxy resin paint (75% water, 21% resin and pigment and 2% solvent) is applied by subjecting components to a 250 volt DC current during submersion.
- B2 Ultra-filtrate rinse
- B3 Repeat ultra-filtrate rinse
- B4 De-mineralised water wash

Stoving

Curing is 180°C for 20 minutes. To allow the components to reach this temperature the oven is operated at 190°C and the process time is 50 minutes.

Finish painting process

This is by spray application in one of two open-fronted booths. This operation is also in three stages: -

- C1 Preparation The assembled unit is wiped by hand with a pre-impregnated water-based solution inside one of the two booths.
- C2 Painting All final paint is applied using manually operated spray equipment. The paint is applied in two or three coats to the outside of the assembled unit. The unit is left within the booth to allow partial drying.
- C3 Drying The unit is removed from the booth and taken to an open drying area within the factory and left for 24 hours.

Plant Detail

The process utilises computer controlled transporters for the dipping tanks as part of the pre-treatment and prime paint application. The main electrophoretic painting tank contains 17,000 litres of the water based epoxy resin. This solution is continuously circulated to prevent settlement of the pigment. Paint line data is recorded. This provides a continuous graphical record of the results. An IBC dispensing system automates the pigment pre-mix

and pouring operation which forms part of the 4-stage primer painting. The pigment is piped to a diaphragm pump and onwards directly to the point of use.

The stoving oven is fired by natural gas with a fully modulating burner and electronic temperature control. The oven incorporates forced air circulation with forced air curtains at both entrance and exit of the oven tunnel. There is an extract hood to the front of the oven with a ducted discharge to atmosphere (stack no.7 on Appendix 2). The oven exhaust is via a thermal incinerator (stack no.5 on Appendix 2).

The incinerator is fired by natural gas using a fully modulating burner. It operates between 700 - 720°C max in the combustion zone. The incinerator outlet is via an air/air heat exchanger system prior to discharge. The heat exchanger allows preheated air to be supplied to the stoving oven.

The finish paint is applied in two Binks no-pump water wash booths. The fan extraction on each booth draws air and overspray into the wash chamber at the back. Finish paint is applied by manually air operated spray equipment.

Plant Operation

All chemicals for the 8-stage pre-treatment are pumped into the process tanks. These are all water-based.

Resin and pigment is added in a bulk storage system which requires no manual handling of materials. Solvent is occasionally added manually into the paint tank.

When finish paints are required, they are withdrawn from the paint store and transported to one of the two spray booths by hand barrow on bunded stillages. Paint and solvent tins are opened outside the booths and the contents delivered to the spray equipment by a diaphragm pump. Special paints or colours are poured by hand into an open tin and mixed manually with solvent.

Any waste material from the primer process is pumped into the effluent treatment plant. Chemical additives promote settlement and the treated effluent is discharged into the sewerage system. The settled sludge is contained and every six weeks the tank is pumped out almost clean. The sludge is transported by road tanker for disposal.

All waste finish paint and solvent is manually gathered into 25-litre lidded tins. These are then recycled in a fully enclosed solvent boiler. Solvent is reclaimed and used for cleaning purposes. The remaining residue is treated as a special waste.

Principle Emissions

The key emissions from the installation consist of:

VOC,
Particulate matter
Carbon monoxide
Oxides of nitrogen
And isocyanates

These emissions are likely from handling, loading and mixing processes involving organic solvents, cleaning operations, handling and storage of waste, oxidation of extracted and combustion gases.

All paint spraying operations are carried out within one of the 2 spray booths, which operated under negative pressure so as to prevent fugitive emissions of odour and particulate matter. The process is a batch process, with components being painted in accordance with customer requirements. Paints and flammable solvents are stored in the paint store and distributed to the individual spray areas as required for each particular job.

Paint is applied by HVLP guns within the spray booths. Prior to paint application surfaces require degreasing. Degreasing is carried out by hand using pre-impregnated wipes of water-based solution.

Emissions to air are subject to control by local exhaust ventilation. There is a written plan for the maintenance, inspection and replacement of extract air filters and a logbook is kept detailing all filter changes.

After coating, products are allowed to air dry within the booth and then moved the flash off area where fans are used to aid air circulation and assist drying.

The tools used in the application of coatings, such as spray guns, mixing vessels, etc are cleaned after use. The cleaning agents vary according to the type of paint employed but are predominately water-based. All cleaning operations are carried out in the spray booth with the extract equipment running.

Residual paint and solvent waste are returned to the paint store for recycling.

Nominally empty paint tins are crushed and placed in an enclosed waste container and removed by an authorised waste company.

End of Introductory Note.

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

Table I

Activities listed in Schedule I of PPC Regulations/associated activity	Description of specified activity	Limits of specified activity
Section 6.4, Part B	Metal coating activity	From the receipt of raw materials onto the site to the dispatch of finished products and handling storage and removal of waste.

Subject to compliance with the following conditions:

Permit Conditions

Standard Conditions

1. If the operator proposes to make a change in operation of the installation he shall, at least 14 days before making the change, notify Charnwood Borough Council 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 of operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.
2. The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the installation which is not regulated by any other condition of this permit

Emission Limits, monitoring and other provisions

Non – VOC Emissions

3. The following non-VOC emission limits shall apply.

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Table 2

Substance	Source	Emission Limit	Monitoring Method	Monitoring Frequency	Monitoring Method
Particulate matter	All process activities - stacks 1-7	50mg/Nm ³ 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. See paragraphs 5.23,5.24,5.25 and 5.26 of PG6/23
Carbon monoxide	Incinerator	100mg/Nm ³ as 30 minute mean for contained sources	In accordance with ISO 12039	Annual	Manual extractive testing. See paragraphs 5.23,5.24,5.25 and 5.26 of PG6/23
Nitrogen oxides measured as NO ₂	Incinerator	100mg/Nm ³ as 30 minute mean for contained sources	In accordance with ISO 10849	Annual	Manual extractive testing. See paragraphs 5.23,5.24,5.25 and 5.26 of PG6/23
Isocyanates	All process /activities using isocyanates	0.1mg/Nm ³ 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.	Annual	Manual extractive testing. See paragraphs 5.23,5.24,5.25 and 5.26 of PG6/23

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

Calibration and Compliance Monitoring

4. No pollutant emission shall exceed the emission concentration limit specified above, 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)

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- 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).

VOC Emissions – Reduction Scheme

- 5. Emissions of Volatile Organic Compounds (VOC’s) shall be controlled by using the reduction scheme as described in the Secretary of State’s Process Guidance Note PG 6/23 (04).
- 6. A Solvent Management Plan (SMP) shall be submitted to Charnwood Borough Council annually by 31 January to determine compliance with the reduction scheme and shall be as described in clause 5.11 and 5.12 and Appendix 2 (SED Annex III) of Process Guidance Note PG6/23(04), (reproduced in Schedule A of this permit).
- 7. The Operator shall demonstrate by calculation that the emission of Volatile Organic Compounds to the atmosphere is less than or equal to the” Target Emission” value as described in the table below.

Table 3- Target Emission

Solvent Consumption Below 15 Tonnes	
Reduction Scheme “Target Emission”	Total Mass of Solids X 0.6

- 8. Compliance with the Reduction Scheme shall be achieved if the Annual Actual Solvent Emission derived from the SMP is less than or equal to the Target Emission.

The Annual Actual Solvent Emission = I₁ - O₈-O₇- O₆ (-O₅ if abatement used)

Where:

- I₁** Is the quantity of organic solvents, or their quantity in raw materials and preparations purchased which are used as input into the activity (including cleaning solvents).
- O₈** Organic solvent contained in preparations recovered for reuse but not as input into the activity, as long as not counted under **O₇** .
- O₇** Organic solvent contained in preparations, which are sold or are intended to be sold as a commercially valuable product.
- O₆** Organic solvent contained in collected waste.

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- 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**)

Determination of Solvent Consumption

9. A written inventory of all organic solvent usage shall be forwarded to Charnwood Borough Council annually by the 31 January. The inventory shall state the total organic solvent consumption using the guidance set out in clause 5.10, of PG 6/23 (04).

The inventory shall record:

- The mass of solvent contained in coatings and cleaners in the initial stock (**Is**) at the start of the accounting period, plus
- The mass of solvent contained in coatings and cleaners in the purchased stock (**Ps**) during the accounting period
- Minus the mass of solvent contained in coatings and cleaners in the final stock (**Fs**) at the end of the accounting period.

Then the **Total Solvent Input (I₁) = Is + Ps - Fs**

Having calculated the Total Solvent Input (**I₁**), the operator shall then calculate solvent consumption by subtracting from the Input figure any solvent that is sent out for recovery.

Hence: **Consumption C = I₁ - O₈** i.e. the consumption of VOC per year

10. As an alternative to compliance by the Reduction Scheme the VOC emission limits in Table 4 below shall be complied with.

Table 4 VOC Emission Limits				
Substance	Source	Emission Limit	Fugitive Emission Values	Monitoring Frequency
VOC in waste gases	Abatement plant	50 mg Carbon/Nm ³	25% of solvent input (See SED Box 9)	Abated Releases -Continuous monitoring and recording Plus Annual manual extractive testing in accordance with EN 13526

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	Other waste gases	100 mg Carbon/Nm ³		Unabated Releases – Annual manual extractive testing
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11. The introduction of dilution air to achieve the emissions concentration limits specified in Tables 2 & 4 above shall not be permitted.

Designated Risk Phrase Materials, Emission Limits and Conditions

12. No designated Risk Phrase Materials shall be used at the installation.
13. No new materials with a designated risk phrase R45, R46, R49, R60 and R61 shall be introduced into this process without the prior notification and permission of Charnwood Borough Council.

Other Provisions

Monitoring, Investigation And Recording

14. 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.
15. The operator shall keep records of all inspections, tests and monitoring including non-continuous monitoring 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.
16. The operator shall provide a list of key abatement plant and shall have a written plan for dealing with its failure.
17. The operator shall notify Charnwood Borough Council at least 7 days before 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.
18. The results of all non-continuous emission monitoring shall be forwarded to Charnwood Borough Council within 8 weeks of the completion of sampling.
19. In the event of adverse results from **any** monitoring activity, the Operator shall investigate as soon as the results are obtained. The Operator shall:
- Identify the cause and take corrective action

- Record (in a 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

20. 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.
21. All releases to air, other than condensed water vapour, shall be free from persistent visible emissions and droplets.
22. There shall be no offensive odour beyond the site boundary, as perceived by an authorised officer from Charnwood Borough Council.
23. Visual and olfactory assessments of emissions of each stack serving the spray booths shall be made at least once per day and recorded in the log book.

Abnormal events

24. In the case of abnormal emissions, or malfunctions or breakdown leading to abnormal emissions the Operator shall.
 - Investigate immediately and undertake corrective action
 - Adjust the process or activity to minimise those emissions and
 - Promptly record the events and actions taken
 - Notify Charnwood Borough Council **immediately**, if the emission is likely to have an effect on the local community or in the event of failure of key abatement plant, for example, the incinerator.

Continuous Monitoring VOC Abated Releases

25. The Stoving oven incinerator shall be provided with continuous monitoring and recording of the combustion chamber temperature, to be used as a surrogate measurement to demonstrate adequate VOC destruction.
26. All continuous monitoring readings shall be on display to appropriately trained staff.

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27. All continuous monitoring instruments shall be fitted with audible and visual alarms, situated to warn the operator of abatement plant failure or malfunction.
28. The activation of alarms shall be automatically recorded.
29. 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.

Varying Monitoring Frequency

30. Where there is consistent compliance with emission limits, the Council may consider reducing the frequency of monitoring. Consistent compliance shall be demonstrated using the result from at least three or more monitoring exercise within two years.

Control TechniquesNon VOC Releases Control Techniques

31. Emissions from the stoving oven shall be adequately contained, and for this purpose the plant generating the air curtains at the exit and the entrance to the oven shall be the subject of preventative maintenance.
32. All stoving oven emissions shall be exhausted to suitable arrestment equipment, namely the thermal incinerator.
33. All ovens, ductwork and ancillary equipment shall, as far as possible, be made and maintained gas-tight to prevent the leakage of waste gases to air. An annual visual inspection of all ductwork shall be carried out for the purpose of complying with this condition.

VOC Control – Handling And Storage

34. The pigment and resin shall be delivered in and dispensed from a bulk storage system (IBC's), piped into a diaphragm pump and then to point of use; thereby ensuring all stages of the delivery system is enclosed.
35. The receipt, handling and storage of organic solvents shall be carried out so as to minimise the emission of volatile organic compounds to air.

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36. Spillage containment kerbs shall be provided to areas set aside for the storage of drums containing material with an organic solvent content.
37. All vessels or containers containing materials with an organic solvent content shall be self-closing and lidded or enclosed when not in use.
38. All mixing, emptying and transfer of coatings or raw materials containing VOC's shall be undertaken in covered or closed mixing vessels so as to minimise the emissions of VOC's.
39. All paint spraying operations shall only be carried out under local exhaust ventilation (LEV) in one of the two spray booths.
40. Emissions from flash-off areas shall be contained and vented to an LEV system.

VOC Control – Cleaning (Including Surface Cleaning)

41. No cleaning or degreasing shall be undertaken by immersing components or products in a tank containing solvent. All components requiring pre-treatment by immersion shall be prepared using water-based chemical treatments.
42. Where fixed equipment is cleaned *in situ*, it shall, where practicable, be kept enclosed whilst cleaning is carried out.
43. Where equipment is cleaned off-line (such as HVLP guns) cleaning shall be carried out using enclosed cleaning systems. Such enclosed cleaning systems shall be sealed to prevent emissions whilst in operation. Any emission shall be contained and vented to an LEV system.
44. All spray gun testing and spray out, following cleaning shall be carried out in the spray booths and in accordance with a written procedure a copy of which shall be made available to the local authority upon request.
45. Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every 2 years, to identify opportunities for reducing VOC emissions (e.g. cleaning steps that can be eliminated, or alternative cleaning methods). Charnwood Borough Council shall be provided with a report on the conclusions of the review.
46. Pre-impregnated wipes shall be used for surface cleaning which shall be stored in an enclosed container prior to use.

VOC Control – Operational

47. A programme to monitor and record the consumption of coatings/organic solvents against product produced shall be used to minimise the amount of excess organic solvent used.

VOC Control –Waste

48. Empty containers or drums contaminated with organic solvent shall be closed to minimise emissions from residues during storage prior to disposal. Containers shall be labelled prior to disposal, so that everyone that handles them is aware of their content and hazardous properties.
49. 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, with the lids securely fastened at all times other than when in use.

For material that may undergo spontaneous combustion, special bins that allow air to circulate beneath and around them to aid cooling, may be used.

VOC Control - Dust and spillage control

50. A supply of absorbent material shall be readily available in all organic solvent handling areas for use in the event of spillage. All spillages and leaks of VOC shall be cleaned up immediately and the collected material held in an enclosed container pending removal from site.

Stack, Vents and Process Exhausts

51. Stacks or vents shall not be fitted with any restriction at the final opening, for example, a plate, cap or cowl.
52. Stacks and ductwork shall be cleaned to prevent the accumulation of materials, as part of the routine maintenance programme, at least once every 12 months.

Management

53. The activity shall operate in accordance with a structured environmental management system (EMAS) to ISO 14001 standard or similar.

Spares and Consumables

54. Spares and consumables - in particular those subject to continual wear - shall be held on site or shall be available within one working day from guaranteed suppliers, so that plant breakdowns can be rectified rapidly.

Training

55. Staff at all levels shall receive the necessary formal training and instructions in their duties relating to control of the activity and emissions to air. Training of all staff with responsibility for operating the process / activity shall include;
- Awareness of their responsibilities under this permit, in particular how to deal with conditions likely to give rise to VOC emissions, such as in the event of spillage and
 - Action to minimise emissions on start up and shut down and during abnormal conditions.
56. The operator shall maintain a statement of training requirements for each operational post and keep a record of training received by 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.

Maintenance

57. A written maintenance programme shall be available to Charnwood Borough Council with respect to pollution control equipment and a record of such maintenance shall be made available for inspection.

End of Conditions

Schedule ADetermination of Solvent Consumption (reproduced from PG 6/23(04))

- 5.10 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 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: $C = I_i - O_o$

- I_i 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_i) 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_i) = IS + PS – FS

Solvent Management Plan

- 5.11 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.
- 5.12 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 Box5). Once completed, it need not be done until the equipment is modified.
 - For process/activities using the reduction scheme, the SMP should be used to determine the actual emissions annually (paragraph 5.7)

Definitions

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

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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 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).
- I₂ 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.)

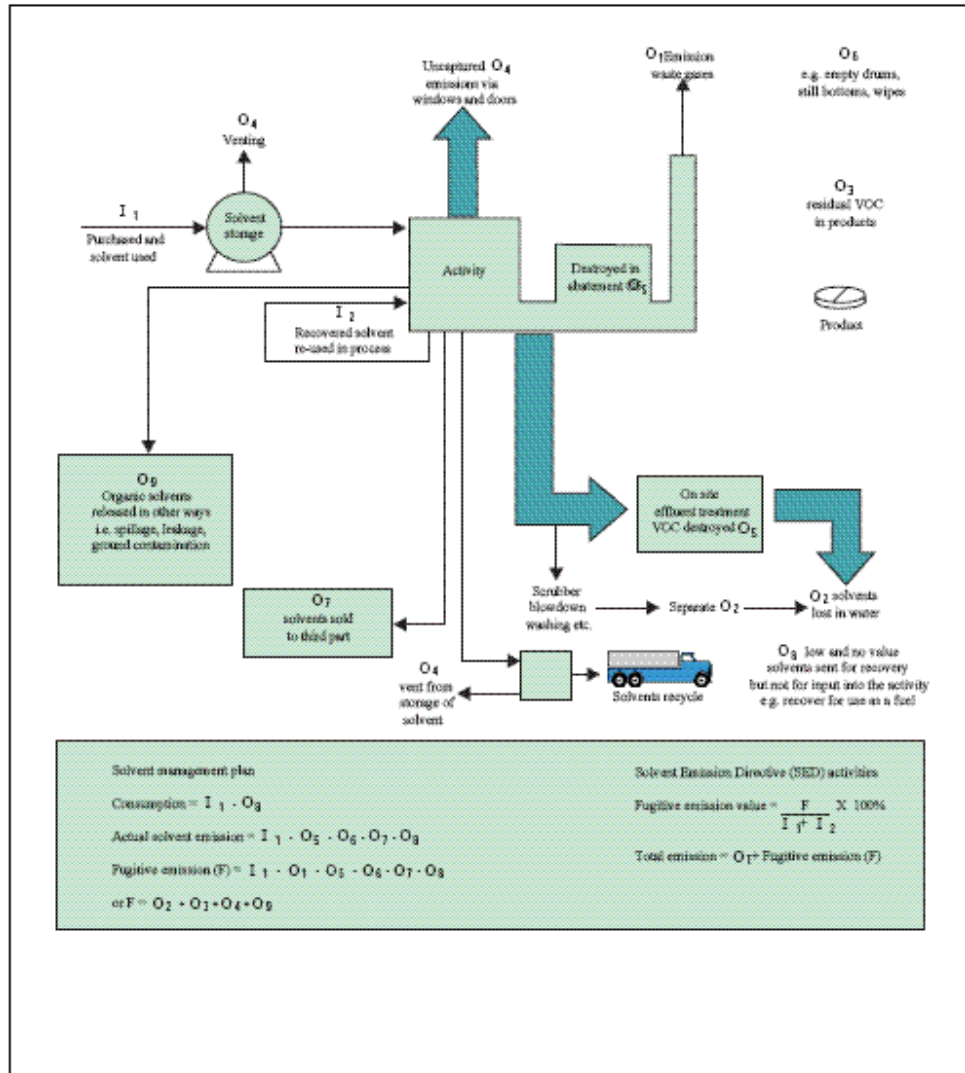
Outputs of Organic Solvents in the time frame over which the mass balance is being calculated (O).

- O₁ Emissions in waste gases.
- O₂ Organic solvents lost in water, if appropriate taking into account waste water treatment when calculation 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 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 Is Organic solvent contained in collected waste
 - O₇ Is Organic solvent contained in preparations, which are sold or are intended to be sold as commercially valuable product.
 - O₈ Is Organic solvent contained in preparations 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.

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LAPPC and LAPC

Figure 5.1: Solvent Management Plan Inputs and Outputs



Appendix ISite Location Plan

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Appendix 2

Site Layout

Appeals in relational to Environmental Permits

These notes do not comprise part of Permit Serial No. 38 but contain guidance for Operators receiving a permit.

1. 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 within 6 months from the date of the permit issue.
2. Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations and should be addressed as follows:

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

3. An appeal brought under Regulation 31(b)(1) 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.
4. There are no forms or charges for appealing. However for an appeal to be valid, appellants are legally required to provide information as detailed in paragraphs 2(1) and (2) of Schedule 6 of the EP Regulations., namely:
 - I. A statement of the grounds of appeal
 - II. A copy of any relevant permit
 - III. A copy of any relevant correspondence between the appellant and the regulator
 - IV. A statement indicating whether the appellant wishes the appeal to be in the form of a hearing or dealt with by way of written representations.
5. 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, to direct the local authority either to vary any of these other conditions or to add new conditions.