CALDERDALE METROPOLITAN BOROUGH COUNCIL

THE POLLUTION PREVENTION AND CONTROL ACT 1999

THE POLLUTION PREVENTION AND CONTROL (ENGLAND AND WALES) REGULATIONS 2000 (AS AMENDED)

PERMIT NO: PPC/201

Contents

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PERMIT NO PPC/201

APPLICATION DULY MADE:	7 August 2006
PERMIT REFERENCE NO:	PPC/201
VARIATION:	1st Variation
REGISTERED ADDRESS OF OPERATOR:	Elland Steel Structures Ltd Philmar House Gibbet Street Halifax HX2 0AR
ADDRESS OF INSTALLATION:	Elland Steel Structures Ltd Philmar House Gibbet Street Halifax HX2 0AR

Calderdale Metropolitan Borough Council ('The Council') hereby permits the above-named company ('the operator') to operate a metal coating installation with associated shotblasting, at the address stipulated above, within the installation boundary as marked in red on the attached plan, reference PPC/201/P1, in accordance with the following conditions.

Solvent Emissions Directive This permit contains conditions intended to secure compliance with the Solvent Emissions Directive.

DESCRIPTION OF INSTALLATION:

Large steel components are coated in a large enclosed building with extraction from seven points labelled E1 to E7 on plan PPC/201/P1.

The extraction areas have textile filters to collect overspray before the exhaust air is expelled to atmosphere through vertical stacks. The extraction system has been designed specifically for this operation.

Parts to be coated may be shotblasted as part of the preparation stage. A Schlick Shot Blast machine is used for this.

The operator has elected to comply with the requirements of the Solvent Emissions directive by use of the reduction scheme, which is described in this permit.

CONDITIONS:

Section 1: Emission Limits and Controls (general and non-VOC)

1.1 **General** All emissions to air from the installation, other than steam or condensed water vapour, shall be free from persistent fume, mist and droplets.

1.2 **Odour** There shall be no offensive odour beyond the site boundary due to the operation of the installation.

1.3 **Particulate Matter Emission Limit** The concentration of total particulate matter in the final discharge to air from the extraction points (E1 to E7) serving the coating installation shall not exceed 50 mgm^{-3} averaged over 30 minutes.

1.4 **Reference conditions** For the purpose of comparison with the limit set out in Condition 1.3 pollutant concentrations shall be expressed at reference conditions 273K, 101.3 kPa, without correction for water vapour content.

1.5 **Dilution air** Dilution air shall not be introduced to the exhaust streams from the extraction points (E1 to E7) for the purpose of meeting the emission concentration limit in Conditions 1.4.

Section 2: Reduction Scheme

2.1 **Emissions Reduction Plan** The operator shall forward to the Council, within 3 months of the date of issue of this permit, an emission reduction plan for VOCs. The plan shall be in the form of a written statement setting out proposed methods to achieve reductions in the solvent content of the total input of coating materials into the installation and increasing the efficiency of the transfer of solids during the coating operation.

2.2 **Target Emission** The operator shall calculate the target emission for the installation as follows:
Step 1: The total mass of solids (in kg) in all coatings consumed in a year shall be calculated.
Step 2: The target solvent emission shall be calculated by multiplying the mass obtained in step 1 by 0.37. (see explanatory notes)

2.3 **Compliance with Reduction Scheme** The operator shall demonstrate at least annually that the actual solvent emission from the installation is less than the target emission. Demonstration shall be by means of a Solvent Management Plan (SMP) for the relevant 12 month period 1 April to 31 March, in the form set out in Appendix 4 or in a form providing equivalent information. The SMP shall be submitted to the Council in May of each year.

2.4 **Notification of changes to raw material input** The operator shall notify

Calderdale Council of any proposal to make changes to the volatile organic content or solids content of materials input into the installation where the changes may have a significant impact on the total mass of solids used or on VOC emissions from the installation. Notification shall be made prior to the changes being made.

Section 3: Monitoring, Sampling and Assessment of Emissions

3.1 **Visual and olfactory assessments** The operator shall nominate an employee to undertake visual and olfactory assessments of the emissions from the installation.Olfactory assessments shall be undertaken downwind of the installation, and all assessments shall be undertaken when the relevant plant is in operation, at least once a day. The assessments shall last a minimum of one minute. The nominated employee shall not be work in the paint shop.

3.2 **Records of assessments** The results of assessments made in accordance with the Conditions of this permit shall be recorded in a logbook kept for the purpose. The records shall include:

(i) The name of the person carrying out the assessment;
(ii) The date and time of the assessment;
(iii) The results of the assessment;
(iv) A brief indication of the weather conditions; and
(v) Any action taken to deal with abnormal emissions.

The logbook shall be kept at Elland Steel Structures Ltd, Halifax, and records shall be not be disposed of for at least two years after the date on which they are made. The logbook shall be made available to any duly authorised officer of the Council on request.

3.3 **Provision of monitoring points** Adequate safe provision shall be made for the monitoring of emissions, including monitoring points and safe access to these points. The monitoring points shall be designed and located to allow the collection of representative samples of exhaust gases.

3.4 **Test methods** Extractive tests, when required, shall be carried out using suitable methods to be agreed in advance with the Council. Any proposed or actual deviations from an accredited standard shall be clearly explained and justified in the monitoring report.

3.5 **Forwarding monitoring results to the Council** The results of any testing required by the Council shall be forwarded to the Council within 8 weeks of completion of the testing, in a form complying with the minimum standards set out in Appendix 1 of this Permit.

3.8 **Annual solvent consumption** The operator shall submit to the Council before 1 May each year a calculation of the solvent consumption of the installation between 1 April of the previous year and 31 March of the year in question. The definitions set out in Appendix 2 shall be used for this purpose.

Section 4: Process Controls

4.1 **Coating to be carried out inside building** All paint spraying shall be carried out in the building with the doors closed. The extraction shall run at all times coating is being carried out to prevent fugitive emissions of odour and particulate matter.

4.2 **HVLP spraying system to be used** Spray coatings shall be applied using HVLP spraying systems unless the operator can demonstrate that the method in use has comparable solids transfer efficiency. Transfer efficiency shall be better than 65%.

4.3 **Maintenance of ductwork** The ductwork serving the extraction points (E1 to E7) shall be kept clean to prevent buildup of material, and maintained free of leaks to prevent fugitive emissions of particulate matter and VOCs.

4.4 **Discharge of emissions** Emissions from the extraction points (E1 to E7) shall be contained and extracted to vent stacks. These stacks shall not be fitted with any restriction at the final opening. A cone fitted at the final exit to increase efflux velocity, or a properly designed rain excluder that allows free vertical exhaust, shall be permitted. The discharges shall be vertically upwards.

4.5 **Exhaust speed** The final exhaust speed from the extraction points (E1 to E7) shall not be less than $9ms^{-1}$.

4.6 **Final stack openings** The final openings of the exhaust stacks serving the extraction points (E1 to E7) shall discharge vertically upwards and shall not be fitted with any caps, cowls or other obstructions.

4.7 **Notification of modifications** The operator shall notify the Council before installing new equipment or making modifications to the existing equipment.

4.8 **Checking filters** The filters in the extraction areas shall be regularly checked for integrity and blockage. Filters shall not be cleaned while the booth extraction is operating.

4.9 **Storage of VOCs** Raw materials and waste containing VOCs shall be stored in securely closed containers.

4.10 **Empty drums and containers** The following steps shall be taken to minimise the emission of solvents from empty drums and containers

(i) all reasonably practicable steps shall be taken to ensure that drums are emptied and the minimum of solvent is left inside;
(ii) empty drums shall be kept closed pending disposal;
(iii) empty drums shall be clearly labelled and stored in the same conditions as full drums pending disposal.

4.11 **Dispensing cleaning solvents** Cleaning solvents shall be dispensed onto

cloths using piston type dispensers or similar enclosed devices.

4.12 **Cloths contaminated with solvent** Cloths that have been contaminated with solvent shall be kept in suitably labelled self-closing bins. The bins shall be emptied daily.

4.13 **Shot blast machine** The Schlick shot blast machine shall be operated and maintained in accordance with the manufacturer's instructions in such a way as to prevent particulate emissions to air.

4.14 **Gun cleaning machine** An automatic totally enclosed spray gun cleaning machine, or other system which can be shown to achieve comparable or lower emissions, shall be used for all spray gun cleaning. The machine shall be provided with the minimum exhaust ventilation consistent with the prevention of fugitive emissions when the machine is opened.

4.15 **Spraying out after gun cleaning** Sprayout after gun cleaning shall be done into the gun cleaning machine. The extraction shall be run while this is done.

Section 5: Management and Training

5.1 **Preventive Maintenance** Preventive maintenance shall be employed on all plant and equipment concerned with the control of emissions to the air. The operator shall provide to the Council a written schedule of preventive maintenance for the plant and equipment covered by this permit. A record of preventive maintenance shall be kept on site and made available for inspection on request.

5.2 **Review of cleaning operations** The operator shall review all cleaning operations involving the use of organic solvents at least once every two years, beginning in November 2007. A report of the review shall be submitted to the Council within 1 month of completion.

5.3 **Spares** Essential spares and consumables, particularly those subject to continual wear, shall be held on site or shall be available at short notice from suppliers so that breakdowns and defects can be rectified quickly.

5.4 **Breakdowns** All malfunctions and breakdowns that lead to abnormal emissions shall be dealt with promptly. Process operations shall be adjusted so as to minimise the release of dust, fume or solvent into the atmosphere until normal operations can be restored. All such incidents shall be recorded in the logbook required by Condition 2.2 or in a form suitable for inspection.

5.5 **Serious Emissions** The operator shall notify the Council immediately in the event of any emission from the installation that could have an effect on the local community.

5.6 **Environmental Management System** The operator shall operate the

established written environmental management system (EMS) for the purpose of ensuring that the conditions of this permit are complied with.

5.7 **Training** All employees involved in the operation of the coating installation and associated activities shall receive adequate training to

(i) allow them to understand the nature and operation of equipment concerned with the control of emissions to the air;

(ii) make them aware of their responsibilities as they relate to the requirements of this permit;

(iii) allow them to deal with any malfunctions and breakdowns leading to abnormal emissions; and

(iv) enable them to minimise emissions during start-up and shut-down of the relevant plant.

The training requirements and recording of training given may form part of the EMS required by Condition 5.6.

5.8 **Notification of Modifications** Any modifications to the process or equipment used in the installation shall be notified to Calderdale MBC at least 14 days before the modification is to be made, and approval obtained prior to the modification being undertaken.

5.9 **Best Available Techniques** In all matters relating to emissions to air from the installation the operator shall use the best available techniques (BAT) to prevent or, where that is not practicable, minimise emissions whether or not the matter is the subject of any other condition of this permit.

…… Signature ……Date

Mark Thompson
Head of Housing and Environment

EXPLANATORY NOTES

1. **Information used in this Permit** This permit is based upon the information provided in the applications for a permit duly made on 22 January 2007.

2. **Environmental Management System (EMS)** An EMS is a structured system of procedures, record keeping and verification that allows an operator to monitor compliance with legal and performance requirements. In the case of this permit, an EMS need only be concerned with ensuring that the permit conditions are being adhered to. More information is available on www.envirowise.gov.uk

3. **Solvent emission calculation** This calculation can be done on a 'rolling' basis to assist in planning and allow timely identification of possible exceedences. Suppliers may well offer this service.

4. **Health and Safety** This Permit is given in relation to the requirements of the Environmental Permitting Regulations. It must not be taken to replace any responsibilities you may have under workplace Health and Safety Regulations.

6. **Other Statutory Requirements** This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, building regulation approval, hazardous substances consent, discharge consents, waste disposal licence or any licence or consent from the Environment Agency.

7. **Subsistence Fee** The annual subsistence fee is due on 1 April each year. You will be invoiced in for the applicable fee. Failure to pay the fee will lead to revocation of the Permit.

8. **Transferring this Permit** This permit may be transferred in whole or in part to another operator on joint written application to the Council and payment of the relevant fee.

9. **Surrendering this Permit** If the installation is to cease operation the operator named in this permit must surrender the permit by writing to the Council. There is no fee for surrendering this permit.

10. **Application forms** Application forms for surrendering, transferring and requesting a variation to an environmental permit are available on the Council's website www.calderdale.gov.uk.

Contacting Calderdale Council

All enquiries and notifications required in relation to this Permit should be made to:

Calderdale Metropolitan Borough Council
Environmental Health Services
Northgate House
Halifax
HX1 1UN

Tel: 01422 357257
Fax: 01422 392399
Email: environmental.health@calderdale.gov.uk

Incidents occurring outside office hours must be reported on the next working day unless otherwise directed within the Permit or there is an imminent risk to health which shall be reported immediately by telephoning 01422 365101 and asking for the Duty Officer.

Appeal against Permit Conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for the Environment. Appeals must be received by the appropriate Secretary of State no later than 6 months from the date of the decision (normally the date on the bottom of the Permit).

Appeals relating to installations in England should be sent to the Secretary of State for the Environment. 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 BS1 6PN

Tel: 0117 372 8812
Fax: 0117 372 6093

Guidance on the appeal procedure is published by the Planning Inspectorate and available from http://www.planning-inspectorate.gov.uk/

There are no forms or charges for appealing. However, for an appeal to be valid, appellants are legally required to provide the following 8 items :

(a) written notice of the appeal;
(b) a statement of the grounds of appeal;
(c) a statement indicating whether the appellant wishes the appeal to be dealt with by written representations procedure or a hearing – a hearing must be held if either the appellant or enforcing authority requests this, or if the Planning Inspector or the Secretary of States decides to hold one;

(appellants must copy the above three items to the local authority when the appeal is made);

(d) a copy of any relevant application;
(e) a copy of any relevant Permit;
(f) a copy of any relevant correspondence between the appellant and the regulator; and
(g) a copy of any decision or notice which is the subject matter of the appeal.

Appellants should state whether any of the information enclosed with the appeal has been the subject of a successful application for commercial confidentiality and provide relevant details. Unless such information is provided all documents submitted will be open to inspection.

Please Note

An appeal 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 an appeal and to direct the Local Authority either to vary any of these other conditions or to add new conditions.

Appendix 1

MINIMUM REPORT REQUIREMENTS

The conditions of this permit require that non-continuous monitoring be undertaken and a subsequent report of the results submitted to Calderdale MBC.

Monitoring reports are audited to determine if all the requirements of the permit monitoring conditions, the relevant standards and protocols have been met. Reports which do not meet the required standard will be returned and the permit condition will be deemed to have not been complied with.

To aid the contracted consultant to produce a suitable report, Calderdale MBC has produced guidance on the minimum content of such reports, detailed below. The guidance, along with the accompanying checklist, should avoid monitoring reports being rejected.

Please note, reports that do not satisfy this guidance <u>will not be accepted</u>. A specified time limit will be given to allow the operator to provide any additional information required.

THE REPORT must include the following or equivalent information

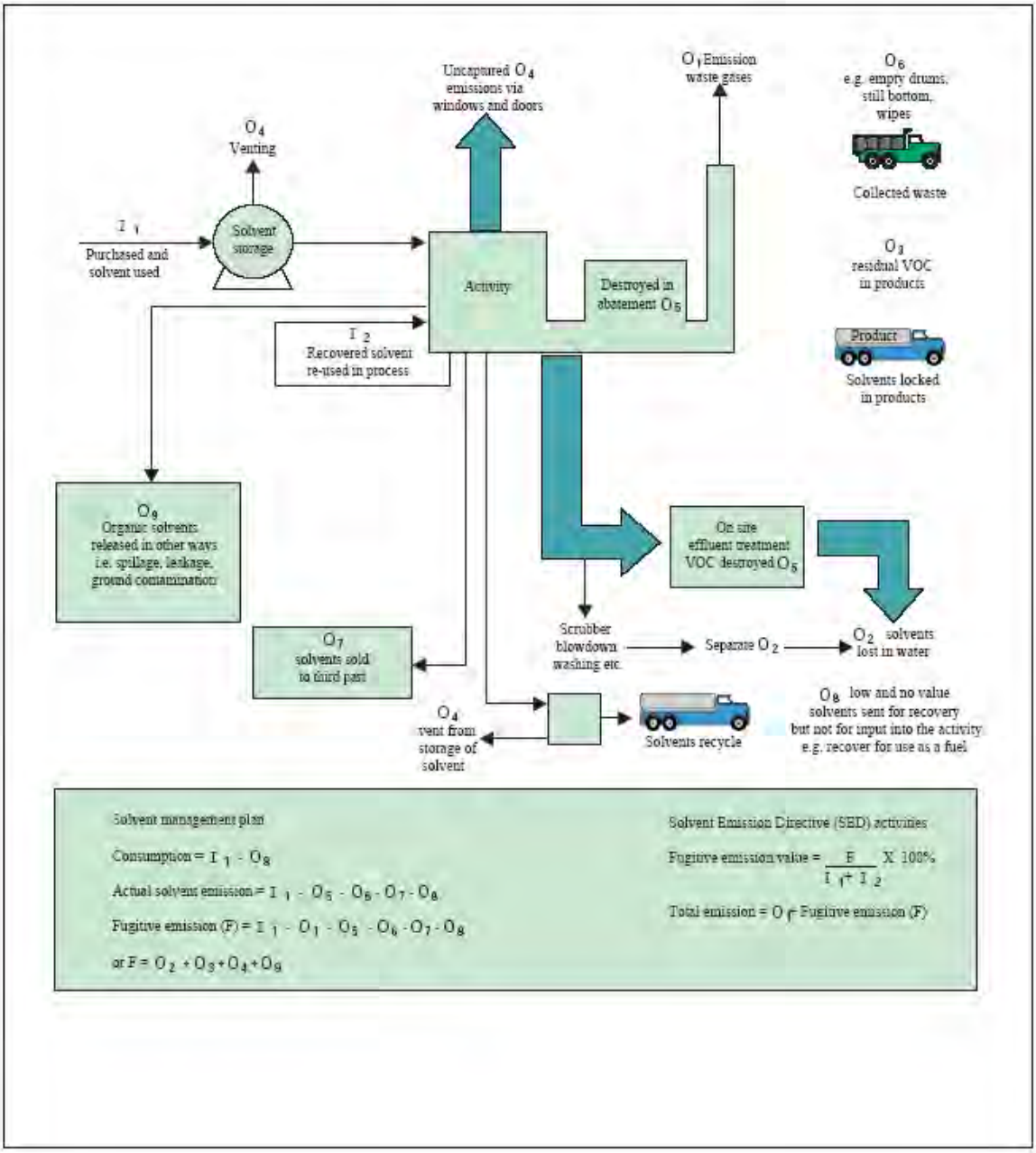
- A summary of results indicating compliance or otherwise.
- The Introduction, giving the plant description and the conditions under which testing was undertaken.
- Method or Experimental details, stating the methods used and the sampling conditions.
- Results including summary results tables. Details should be left to the appendices.
- Discussion summarising uncertainties of measurement, e.g accuracy/precision of methods, and mentioning factors which may affect validity of results.
- Conclusions, stating compliance or non-compliance for each pollutant.

The appendices should include

- Detailed results, diagrams, plant information etc.
- Supporting sampling information.
- Supporting analytical reports and calculations.
- Spreadsheets in electronic form where possible (to be transparent & auditable).
- Details of any correction factors employed.

Appendix 2: Solvent Calculations (taken from PG6/45(04))

Figure 5.1: Solvent Management Plan Inputs and Outputs



SED Fugitive emissions

SED Box 9 Determining Fugitive Emissions

(Annex III)

All activities

Determining fugitive emissions using the Solvent Management Plan

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

$F = I_1 - O_1 - O_5 - O_6 - O_7 - O_8$

Or

$F = O_2 + O_3 + O_4 + O_9$

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

Fugitive Emission Value = 100 x 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.

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)

I1 The quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity (including organic solvents used in the cleaning).

I2 The quantity of organic solvents or their quantity in 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 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 preparations, which are sold or are intended to be sold as a commercially valuable product.

O8 Organic solvents 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.

Consumption

I1 – O8

A calculation of the **purchased organic solvent Input** (I1) 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 (I1) = IS + PS – FS