Application For An Environmental Permit Part B

* required information

Section 1 of 11

Your reference	
Are you an agent acting on behalf of the applicant	YES / NO ✓

Tick 'no' if you are applying on your own behalf or on behalf of a business you own or work for.

Applicant details:

*First name	KIERON
*Family name	BYRNE
*E-mail	louise@steelconstruction.co.uk
Main telephone number (Include country codes)	(024) 7660 2009
Other telephone number (Include country codes)	

Indicate here if you would prefer not be contacted by telephone ☐

Are you:

Applying as a business or organisation, including a sole trader	YES ✓	NO
Applying as an individual	YES	NO ✓

A sole trader is a business owned by one person without any special legal structure. Applying as an individual means you are applying so you can be employed, or for some other personal reason, such as following a hobby.

Applicant Business

*Is your business registered in the UK with Companies House?	YES ✓	NO
*Is your business registered outside the UK?	YES	NO ✓

*Business name	STEEL CONSTRUCTION LIMITED	If your business is registered, use it's registered name
*VAT number	- 660 8526 26	Put "none" if you are not registered for VAT
*Legal status	LIMITED COMPANY	
*Your position in the business	DIRECTOR	
Home country	UNITED KINGDOM	The country where the headquarters of your business is located

Business Address

*Building number or name		If you have one, this should be your official address – that is an address required of you by law for receiving communications
*Street	BODMIN ROAD	

District

*City or town: COVENTRY

County: WEST MIDLANDS

*Postcode: CV2 5DB

*Country: UNITED KINGDOM

Section 2 of 11

APPLICANT DETAILS

*Name of installation: FUME EXTRACTION PLANT (WET BACK BOOTH)

Please give the address of the site of the installation

*Building number or name: SCL WORKSHOP

*Street: BODMIN ROAD

District

*City or town: COVENTRY

County: WEST MIDLANDS

*Postcode: CV2 5DB

*Country: UNITED KINGDOM

Telephone number: (024) 76602059

Ordnance Survey national grid reference 8 characters, for example SJ123456

Please give details of any existing LAPC or IPC authorisation for the installation, or any waste management licences or water discharge consents, excluding reference numbers(s) and type(s)

- HA2 ENVIRONMENTAL INDUSTRIAL SERVICES LTD. > DISPOSE OF WASTE.
- BIFFA WASTE SERVICES LTD.

Section 3 of 11

THE OPERATOR

Please provide the information requested about the "Operator", which means the person who it is proposed will have control over the installation in accordance with the permit (if granted)

Full name of company, partnership or corporate body	STEEL CONSTRUCTION LIMITED
Trading/business name (if different from above)	

Registered Address

Is this address the same as the address given in section 1?

YES	NO
✓	

If "no" enter address below:

Building number or name	
Street	
District	
City or town	
County	
Postcode	
Country	

Principal Office Address

Is the principal address the same as the registered address?

YES	NO
✓	

If "no" enter address below:

Building number or name	
Street	
District	
City or town	
County	
Postcode	

Holding Companies

Is the operator a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006?

YES	NO
	✓

Section 4 of 11

ABOUT THE INSTALLATION

Please state below details of all the current activities in operation at the whole installation.
Please identify all activities listed in Schedule 1 to the EP regulations that are, or are proposed, to be carried out in the stationary technical unit of the installation.

SPRAYING WET PAINT TO STEEL

Please identify any directly associated activities that are, or are proposed, to be carried out on the same site which:

- Have a technical connection with the activities in the stationary technical unit
- Could have an effect on pollution

Please quote the chapter number, section number, then paragraph and sub-paragraph number as shown in Part 2 of schedule 1 to the EP regulations (for example, manufacturing glass and glass fibre where the use of lead or any lead compound is involved, would be listed as chapter 3, section 3.3, part B(b))

Activities in the stationary technical unit ~~PART B~~.

SCHEDULE 1, PART 2, SECTION 7, PART B (a)

Directly associated activities

N/A.

Schedule 1 reference

Why is the application being made?

☐ The installation is new

☑ The installation is existing, but changes to the installation or to the EP regulations means that an LAPPC part B permit is now required (USAGE HAS INCREASED)

Site Maps

Please provide a suitable map showing the location of the installation, clearly defining the chimney location and oil storage tank

Document reference DOCUMENT (A)

Please provide a suitable plan showing the layout of activities on the site, including bulk storage of materials, waste storage areas and external emission points to atmosphere

Document reference DOCUMENT (A)

Section 5 of 11

THE INSTALLATION

Please provide information about the aspects of your installation. We need this information to determine whether you will operate the installation in a way in which the environmental requirements of the EP Regulations are met.

SEE ENCLOSED 'WET BACK BOOTH' MANUAL (DOCUMENT (C))

Describe the proposed installation and activities and identify the foreseeable emissions to air from each stage of the process (this will include any foreseeable emissions during start up, shut down and any breakdown/abnormal operation)
The use of flow diagrams may aid to simplify the operations.

SEE ENCLOSED 'PROCESS CHART' DOCUMENT (D)

Once all foreseeable emissions have been identified in the proposed installation activities, each emission should be characterised (including odour) and quantified

Atmospheric emissions should be categorised under the following

I. Point source (e.g. chimney/vent, identified by a number and detailed on a plan
II. Fugitive source)e.g. from stockpiles/storage areas

If any monitoring has been undertaken please provide the details of emission concentrations and quantify in terms of mass emissions. If no monitoring has been undertaken please state this.
(Emission concentration = e.g. milligrams per cubic metre of air; mass emissions = e.g. grams per hour, tonnes per year)

HSB HAUGHTON DOCUMENT (E)

For each emission identified from the installations' activities describe the current and proposed technology and other techniques for preventing or, where that is not practical, reducing the emissions into the air. If no techniques are currently used and the emission goes directly into the environment, without abatement or treatment then this should be stated.

PAINT BEING USED IS A COMPLIANT PRODUCT TO OUR PROCESS.

Describe the proposed systems to be used in the event of unintentional releases and their consequences. This must identify, assess and minimise the environmental risks and hazards, provide a risk based assessment of any likely unintentional releases, including the use of historical evidence. If no assessments have been carried out please state.

PAINT SPILLAGE - SPILL KITS TO RETAIN SPILLAGE.

Describe the proposed measures for monitoring all identified emissions including any environmental monitoring and the frequency, measurement methodology and evaluation procedure proposed (e.g. particulate matter emissions, odour etc). Include the details of any monitoring which has been carried out which has not been requested in nay other part of this application. If no monitoring is proposed for an emission please state the reason.

HSB HAUGHTON DOCUMENT (E)

ZURICH DOCUMENT (G)

Provide detailed procedures and policies of your proposed environmental management techniques, in relation to the installation activities described.

SEE - DOCUMENT (F) - risk assessment.

MONITORING BY FOREMAN & OPERATORS.

ANNUAL INSPECTION - SEE DOCUMENTS (E) & (G)

Section 6 of 11

IMPACT ON THE ENVIRONMENT

Provide an assessment of the potential significant local environmental effects of the foreseeable emissions (e.g. is there a history of complaints and/or is the installation in an air quality management area?)

NO LOCAL ENVIRONMENTAL IMPACT.

Are there any Sites of Special Scientific Interest (SSIs) or European protected sites which are within either;

- 2 kilometres – for an installation which includes part B combustion, incineration (but not crematoria), iron and steel and non-ferrous metal activities
- 1 kilometre – for part B mineral activities and cement and lime activities
- ½ a kilometre – for all other part B activities

YES	NO
	✓

Section 7 of 11

ENVIRONMENTAL STATEMENTS

Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999/293, for any other reason with respect to the installation?

YES	NO
	✓

Section 8 of 11

ADDITIONAL INFORMATION

Please supply any additional information which you would like us to take account of in considering this application.

SCL USE A PRODUCT COMPLIANT TO OUR PROCESS.

SOLVENT EMISSIONS RECORD SHEET (B) FROM OUR SUPPLIER MANOR PAINTS SHOWS 10.386 KG OF VOC EMISSION — APPROX. 35% OF PAINT PURCHASES WAS SENT TO SUB-CONTRACT PAINTERS.

WASTE SOLVENT / PAINT HAS BEEN STORED SAFELY PRIOR TO REMOVAL FROM SITE BY WASTE SERVICES COMPANY.

Section 9 of 11

ANNUAL CHARGES

If we grant you a permit, you will be required to pay an annual subsistence charge, failure to do so will result in revocation of your permit and you will be not be able to operate your installation
Please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges within your finance section

Contact name	JULIE BOWEN
Building number or name	
Street	BODMIN ROAD
District	
City or Town	COVENTRY
County	WEST MIDLANDS
Postcode	CV2 5DB
Telephone number	(024) 76602009
Other telephone number	
Please give company purchase order number or any other reference number	

Section 10 of 11

COMMERCIAL CONFIDENTIALITY

	YES	NO
Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial confidentiality? Please provide full justification, considering the definition of commercial confidentiality within the PPC Regulations		✓
Is there any information in the application that you believe should be kept from the public register on the grounds of national security? Please provide full justification, considering the definition of commercial confidentiality within the PPC Regulations		✓

The information you give will be used by the local authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and

or disclose any of the information you give us in order to;

- Consult with the public, public bodies and other organisations
- Carry out statistical analysis, research and development on environmental issues.
- Provide public register information to enquirers
- Make sure you keep to he conditions of your permit and deal with any matters relating to your permit
- Prevent breaches of environmental law
- Offer you documents or services relating to environmental matters
- Respond to requests for information under the Freedom of Information Act 2000 and the Environmental Regulations 2004 (if the data Protection Act allows)
- Asses customer service satisfaction and improve our service

We may pass on the information to agents/representatives who we ask to do any of these things on our behalf. It is an offence under regulation 38 of the EP regulations, for the purpose of obtaining a permit (for yourself or anyone else) to:

- Make a false statement which you know to be false or misleading in a material particular
- Recklessly make a statement which is false or misleading in a material particular

Section 11 of 11

PAYMENT DETAILS

This fee must be paid to the authority.

* Fee Amount	£1579.00

Postal Address

Building number or name	
Street	
District	
City or Town	
County	

DECLARATION

This section should be completed by the applicant, unless you answered "Yes" to the question "Are you an agent acting on behalf of the applicant?"
I/We certify:

EITHER

No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations (delete as appropriate*)

OR

The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the Regulations (delete as appropriate*):
Details:

* Full name	RIERON BYRNE
* Capacity	DIRECTOR
Date (dd/mm/yyy)	29.1.2013.

PLEASE KEEP A PHOTOCOPY OF YOUR COMPLETED APPLICATION

DOCUMENT 15

STEEL CONSTRUCTION LTD

SOLVENT EMISSIONS (VOC) RECORD

FROM PRODUCTS SUPPLIED BY MANOR COATING SYSTEMS LTD TO

MANOR

Steel Construction Limited
Bodmin Road, Coventry, West Midlands, CV2 5DB

Account No. 23079

Date: 3rd December 2012

12 MONTH PERIOD - 1st DEC 2011 - 30th NOV 2012

Completed by: Liz Smith

PRODUCT	PACK SIZE	QUANTITY	LITREAGE	VOC KG/LITRE	SG KG/LITRE	TOTAL MASS (LITRES X SG)	TOTAL VOC (KG)	TOTAL SOLIDS (KG)
HIGH SOLIDS (PREVIOUSLY COMPLIANT)								
Promastic 800 CT	4	12	48	0.390	1.3	62.40	18.72	43.68
Promastic 800 CT Hardener	1	12	12	0.315	0.94	11.28	3.78	7.50
QD Phosphate HB 420 Grey	20	277	5540	0.490	1.3	7202.00	2714.60	4487.40
Two Pack Epoxy topcoat base	3	9	27	0.427	1.25	33.75	11.53	22.22
Two Pack Epoxy topcoat hardener	2	9	18	0.650	0.9	16.20	11.70	4.50
Zinfos 490 08E51	15	13	195	0.444	1.48	288.60	86.58	202.02
Zinfos 490 10C31	15	246	3690	0.443	1.49	5498.10	1634.67	3863.43
Zinfos 490 Black	5	3	15	0.470	1.35	20.25	7.05	13.20
Zinfos 490 Black	15	13	195	0.470	1.35	263.25	91.65	171.60
Zinfos 490 Colour	5	12	60	0.490	1.26	75.60	29.40	46.20
Zinfos 490 Colour	15	280	4200	0.490	1.26	5292.00	2058.00	3234.00
Zinfos 490 RAL 7035	15	261	3915	0.451	1.44	5637.60	1765.67	3871.94
Zinfos 490 RAL 9006	15	76	1140	0.485	1.37	1561.80	552.90	1008.90
Zinfos 490 White	15	87	1305	0.444	1.4	1827.00	579.42	1247.58
					SUB TOTAL	27789.83	9565.66	18224.17
THINNERS								
Gunwash	25	38	950	0.850	0.85	807.50	807.50	0.00
2 pack epoxy thinner	5	3	15	0.850	0.85	12.75	12.75	0.00
					SUB TOTAL	820.25	820.25	0.00
					TOTAL	28610.08	10385.91	18224.17
DIRTY THINNER COLLECTION						0.00	0.00	0.00
DIRTY PAINT COLLECTION						0.00	0.00	0.00
					SUB TOTAL	0.00	0.00	0.00
					GRAND TOTAL	28610.08	10385.91	18224.17

PROJECTED 12 months VOC emissions 10386 kgs
PROJECTED 12 months total solids 18224 kgs

So your process is designated as >5-15 tonne VOC/ year.

Your VOC target is calculated as total solids x reduction factor (0.6):- 10934 kgs
Your Projected VOC (from table above) is:- 10386 kgs
So your process is projected to be BELOW target by:- 549 kgs/year

STEEL CONSTRUCTION LTD

DOCUMENT (C)

SPRAY BOOTH TRAINING MANUAL

for

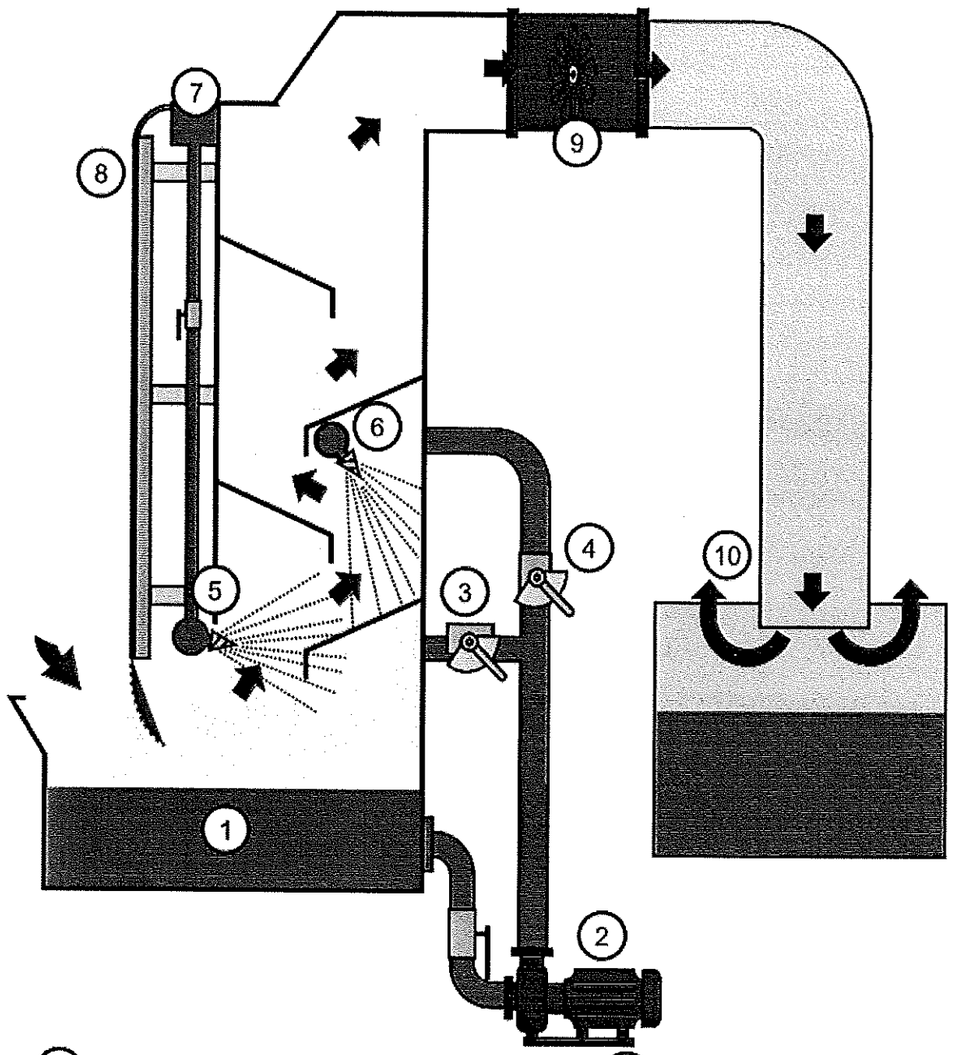
WET BACK BOOTH

located at

STEEL CONSTRUCTION Limited.
Bodmin Road
Coventry
CV2 5DB

By: Mike Warrender
Paintshop Commissioning Services Ltd
for
D. L. Westwood
Engineering Consultant

BOOTH OPERATION SCHEMATIC



1. Water Tank
2. Water Circulation Pump
3. Lower Scrubber Nozzle & Wet Back Supply Valve
4. Upper Scrubber Nozzle Supply Valve
5. Lower Scrubber Nozzles
6. Upper Scrubber Nozzles
7. Wet Back Water Trough
8. Wet Back Sheets
9. Exhaust Fan
10. Exhaust Outlet Box

1. The Water tank should be filled with water above the pump inlet pipework before the pump is started. The tank is fitted with two (2) removable rag guards, these should be withdrawn, one at a time and cleaned on a weekly basis. The water level should be finally adjusted once the system is running, add water until the pump suction pipe does not "Gulp" air, do not overfill the tank as it will effect the air flow.

2. The Water Pump is used to supply water to the Wet Back and the paint elimination scrubbing system. Starting the pump without water in the system could result in damage to the pumps rotating parts. The pump is started from the local wall mounted stop/start station. Whilst the pump is running, a small chemical dosing pump is also energized, this adds paint denaturing chemicals into the circulating water. Ensure that the chemical storage tanks are regularly checked for chemical level.

3. Valve 3 is adjusted to give a balanced water supply to the Wet Back and the lower scrubber nozzles. The valve should not normally need adjusting once set. Do not operate the system with the valve closed as this will allow paint overspray to be discharged to atmosphere.

4. Valve 4 is adjusted to give a balanced water supply to the upper scrubber nozzles. The valve should not normally need adjusting once set. Do not operate the system with the valve closed as this will allow paint overspray to be discharged to atmosphere.

5. Lower spray nozzles, provide a water curtain that scrubs the exhaust air passing through the spray booth. Access to the nozzles requires removal of the "Wet Back Sheets" these should be inspected and cleaned on a monthly basis, failure to clean will result in nozzle blockage and poor booth performance.

6. Upper spray nozzles, provide a water curtain that scrubs the exhaust air passing through the spray booth. Access to the nozzles requires removal of the "Wet Back Sheets" these should be inspected and cleaned on a monthly basis, failure to clean will result in nozzle blockage and poor booth performance. Eliminator plates should also be scraped to remove paint build up.

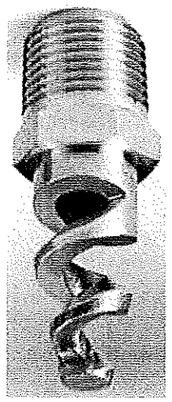
7. Wet Back water trough, distributes the water to the wet back sheets, too much water supply can result in water splashing off onto painted work items. Always start the system before placing work components in front of the booth. Once per week clean the quarter round flood sheet at the exit of the trough and the top of the wet back sheet to remove any waste paint build up that inhibits even water distribution.

8. Wet Back Flood Sheets, clean by jet washing on a monthly basis. Check quarter round flood sheet above wet back if water distribution is uneven.

9. Exhaust fan should be started once the water system is running, do not run the exhaust fan on its own without the water pump. This would allow paint overspray to penetrate though the scrubber system and may cause paint build up on the fan impeller and result in damage.

10. Exhaust outlet box, keep all outlet areas clear so as no restriction in airflow is possible.

Scrubber Nozzles



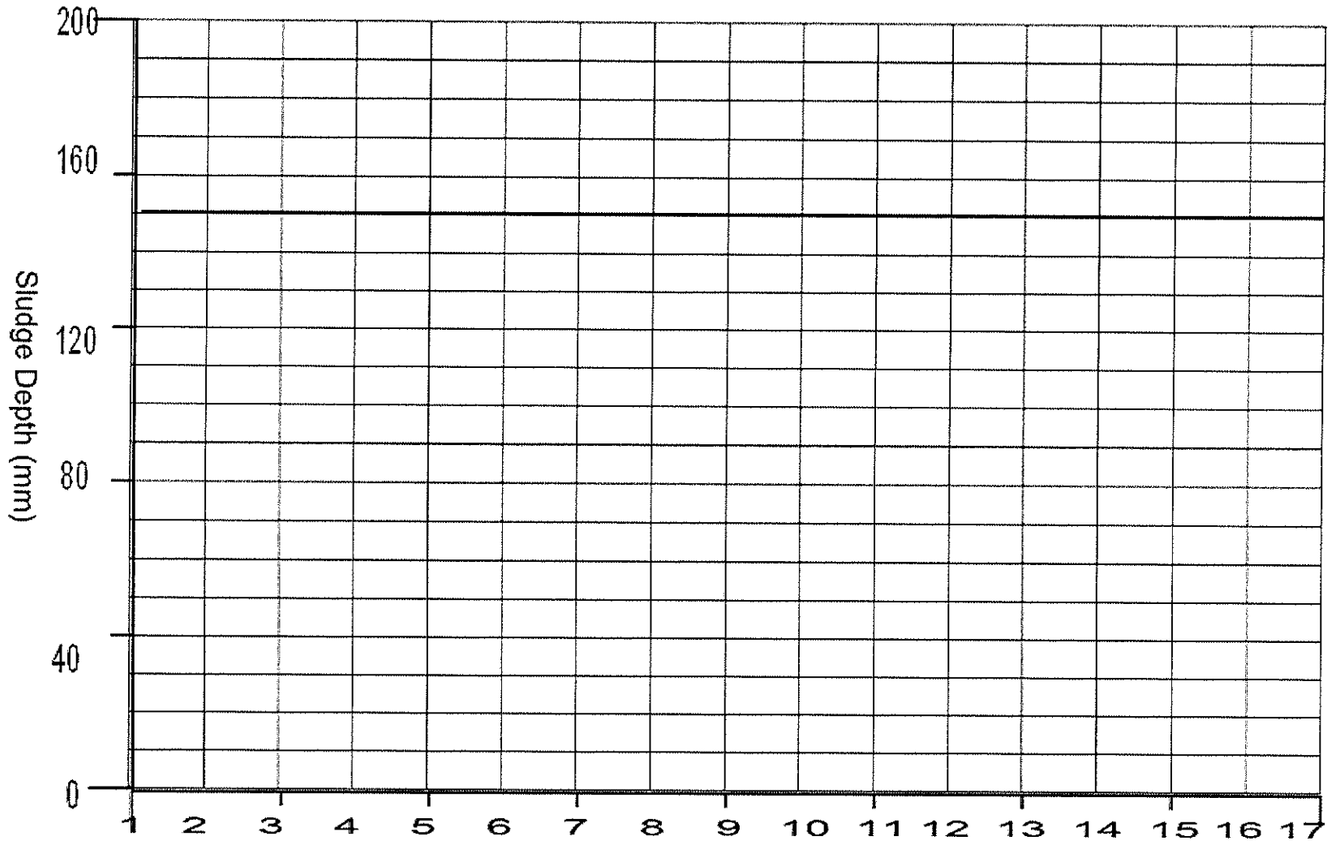
Spiral nozzles work on the impact principle, by deflection of a water stream onto a spiral profiled surface which provides the desired spray angle.
The spray angle value is maintained even at low pressure and when spraying high viscosity liquids.
While the droplet spray distribution is not comparable to the one provided by a standard full cone nozzle, the fact that a whirling vane is not required makes them virtually clog-free in most cases.
Since spiral nozzles work on the impact principle and have no inherent turbulence losses, they produce faster and smaller droplets as compared to a standard full cone nozzle.

Nozzles should be checked and cleaned on a monthly basis to ensure optimum performance of spray booth scrubbing system.

Paint Sludge

The paint sludge level should be monitored on a weekly basis to assess the need to clean out the water tank. Excessive amounts of sludge can lead to pump damage. Attached is a sample graph she which can be utilized to predict cleaning time.

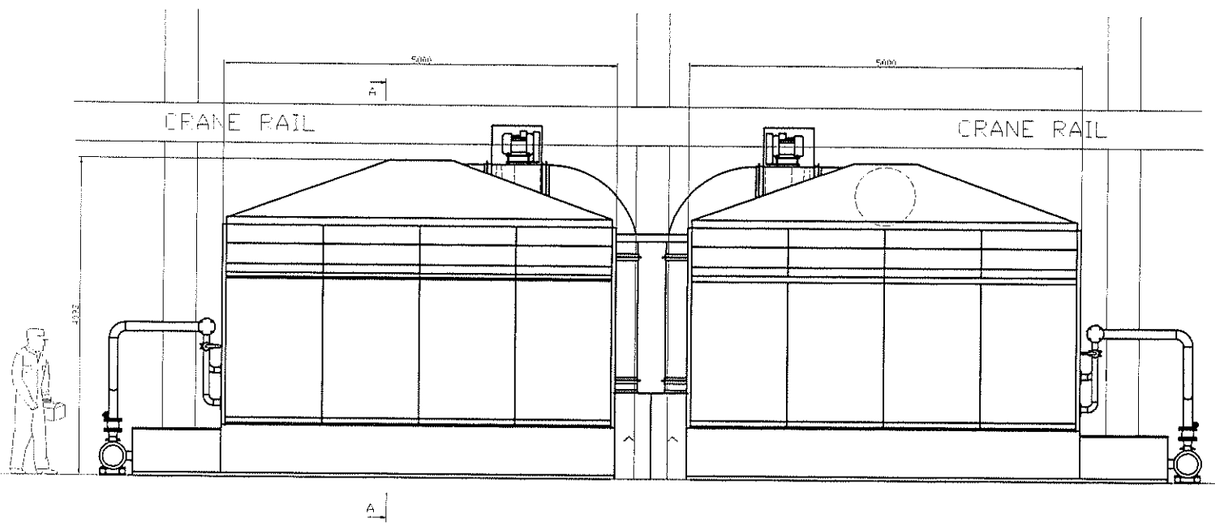
Panit Booth Water Tank Sludge Depth

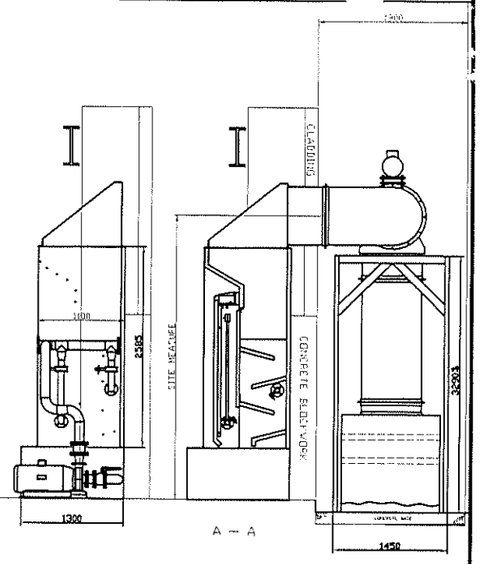


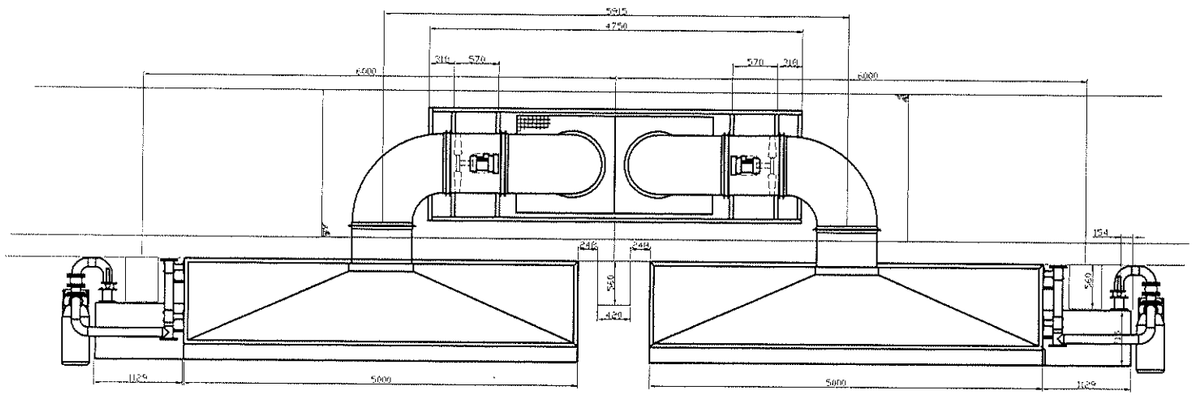
Start Date :

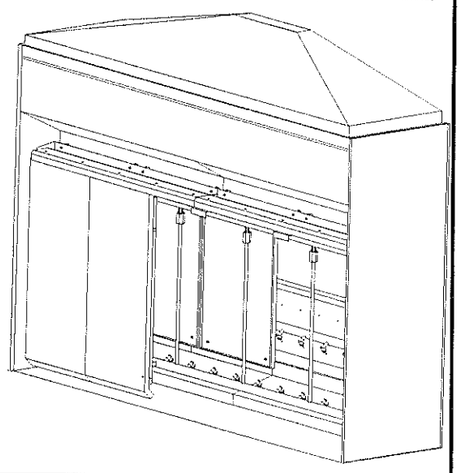
Booth No. :

IF IN DOUBT ASK









Metric dimensions of length where no symbols given

Whole numbers = mm

Decimalised expressions in three places of decimals = m

0 10 20 30 40 50 mm

Note: Tolerances unless otherwise stated
sheet metal up to 3mm thick +0 -3
Platework & steelwork +0 -3
All materials to be completely silicone free
Unless otherwise stated

DO NOT SCALE

Legend.

Original Issue		
	Checked	Approved
Initial		
Date		

THIRD ANGLE

A1 SHEET

LFE ENGINEERING Ltd
SHEET METAL / FABRICATORS
Hibberd House, Curriers Close, Canley, Coventry.
Tel:024 76 465962 Fax:024 76 694519

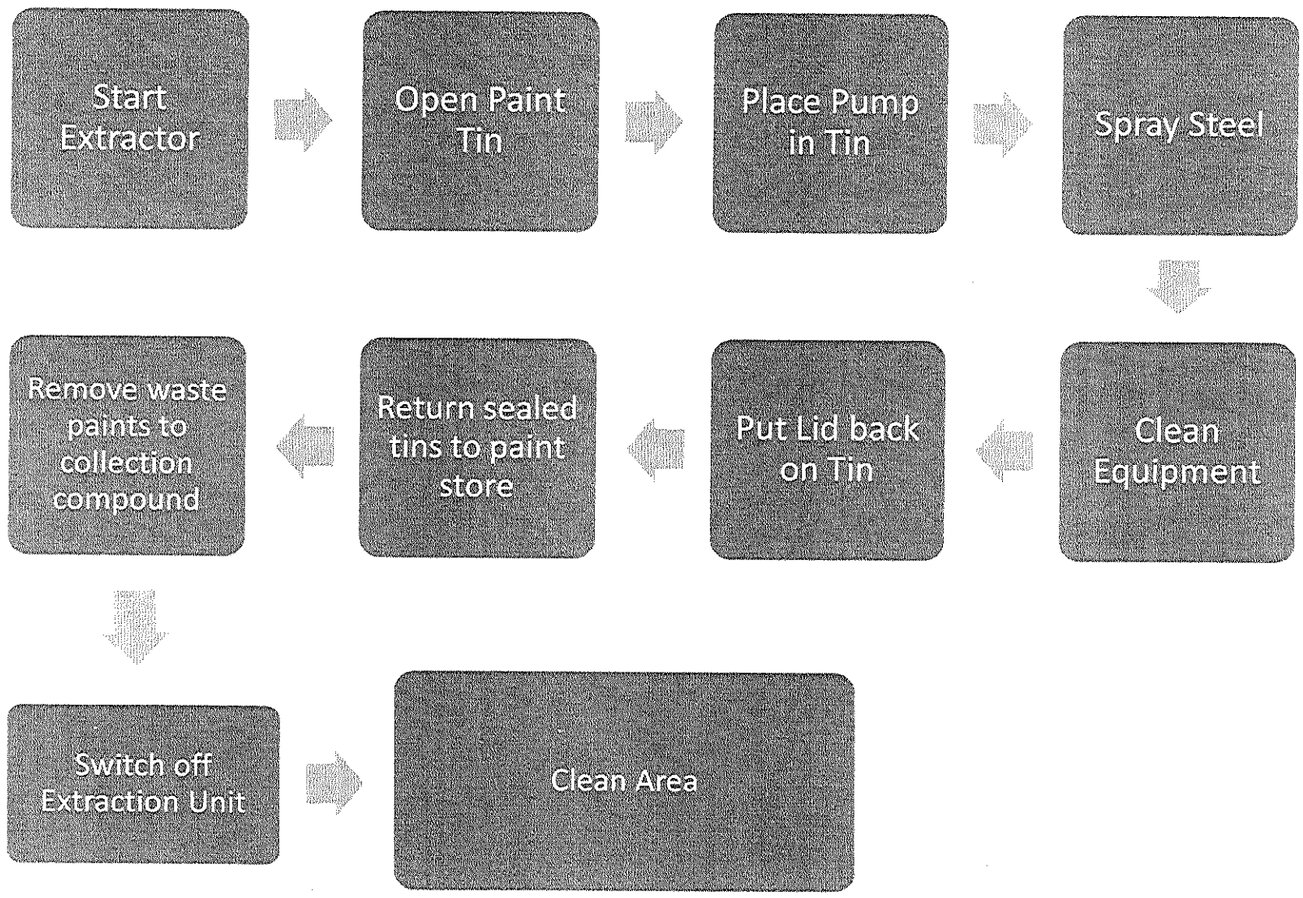
Title: STEEL CONSTRUCTION SPRAY BOOTH GA

Name	Date	Scale	Drg. No.	
J DOOHAN	6-1-06		2549-GA-01	D

STEEL CONSTRUCTION LTD

DOCUMENT (D)

PROCESS CHART



STEEL CONSTRUCTION LTD DOCUMENT (E)

HSB Haughton

Steel Construction Ltd

Bodmin Road
Coventry
West Midlands
CV2 5DB

Carried out 15th March 2011

by

Kenneth M. Oram IEng, CMIOSH, MSOE, MIPlantE
Chartered Safety and Health Practitioner

HSB Haughton Engineering Insurance Services Ltd
Registered office: Cairo House, Greenacres Road, Oldham OL4 3JA
Registered in England and Wales 03010292

INDEX

1. Introduction

This survey was carried out at the request of Mrs. J. Bowen, Accounts Administrator for Steel Construction Ltd.

The objectives of the survey were:-

1. To establish the effectiveness of specified Local Exhaust Ventilation (LEV) plant in accordance with the requirements of the Control of Substances Hazardous to Health Regulations 2002 (as amended) - (COSHH),

2. To make recommendations for improvements to the plant where shortcomings are identified.

After some site discussion, a walk through survey was conducted around the relevant production area.
This was done to identify the LEV plant in question and also to select appropriate personnel and/or locations for air sampling, in order to reflect the most intensive exposures.

2. Methods

2.1 Assessment of Local Exhaust Ventilation Plant

An initial appraisal examination and test of the local exhaust ventilation plant was carried out in accordance with normal engineering practice, during which, normal work activities were taking place. This was done in order to:-

a) show that the plant is in good working order and meets its specified performance to control exposure.

b) determine operating criteria, such as air velocities, static pressures and clearance time, which can be used as a basis for monitoring the ongoing performance of the plant.

The following items of test equipment / instruments were used:

Airflow LCA6000VT Rotary Vane Anemometer – Serial No. 101135 – Calibrated 24/01/2011
Kestrel 3000 Multi Function Meter – Serial No. 379049 – Calibrated 24/01/2011
Dräger Air Current Tubes

Note: All instruments are recalibrated on a 24 monthly frequency.

Note: This initial appraisal should form part of the assessment of health risks to comply with the COSHH Regulations 2002 (as amended) – Regulation 6.

2. Methods (continued)

2.2(ii) Air Sampling – Vapour (Paints)

Samples were taken using passive diffusion monitors (3M – 3500), i.e. worn by the selected personnel, the monitors being positioned within the breathing zone, which allowed contaminants to enter the monitors by diffusion, which in turn were adsorbed by an active adsorbent pad within. Sampling was carried out in accordance with Methods for the Determination of Hazardous Substances (MDHS 88-1997) – Volatile organic compounds in air by the diffusive sampler method.
After sampling, the monitors were removed, placed into sealed containers and returned to the laboratory for analysis by solvent desorption and gas chromatography.

The Workplace Exposure Limit for **Xylene – Total Inhalable** is:
50 ppm or 220 mg/m^3 (8-hour TWA reference period: EH40/2005).

The Workplace Exposure Limit for **Ethylbenzene – Total Inhalable** is:
100 ppm or 441 mg/m^3 (8-hour TWA reference period: EH40/2005).

The Workplace Exposure Limit for **Naphtha – Total Inhalable** is:
300 ppm or 1000 mg/m^3 (8-hour TWA reference period: Product Safety Data Sheet - Manor).

Note: The above substances were used as tracers for the paints/thinners currently used.

3. Personnel and/or Locations Sampled

A	-	P. Stevens	-	Spray Area
B	-	S. Richardson	-	Spray Area

4. Results

D0001 - LEV1 - Pass

See individual report in Appendix 1.

5. Conclusions

The examination and testing of the LEV plant has established that, at the time of the survey, under the working conditions provided, the dust extraction plant was operating at a performance level as described in report LEV1A.

The necessary repairs / modifications and recommendations stated should be actioned without delay, with suitable records of such remedial work being kept, LEV1D.

Plant, which has been found to be unsatisfactory, will require a further initial appraisal examination and test on completion of any remedial action required to achieve a satisfactory level of control performance.

It should be ensured that satisfactory control performance is achieved and maintained.

The air sampling carried out indicates that exposures to fume/vapours from the spray painting operations are well within the currently allowable limits.

It should be noted that this assessment is only valid for the plant conditions and working practices demonstrated at the time of the survey and any alterations of such would render this initial appraisal examination and test invalid under the requirements of the COSHH Regulations.

6. Recommendations

The following recommendations for plant deficiencies and working practices are based on observations made during the course of the site survey.

1. See individual report(s) (LEV1A) – Section 13 for remedial actions.

2. Maintenance of Units

We would advise that regular servicing / maintenance work [COSHH - Regulation (9)(1)] be carried out on each LEV plant / system, in order that optimum performance is maintained and records kept accordingly.

3. Periodic Examination

We would also advise that a programme of periodic examinations and tests of LEV plant [COSHH - Regulation 9(2)(a)] be implemented and reference made to the results obtained in Appendix 1.

4. Report Contents

We would further advise that the contents of this report should not be interpreted as being an absolute identification of all possible hazards or unsafe conditions pertaining to your organisation. The report refers only to the conditions and methods of work made apparent to us at the time of the visit.

5. Additional Documentation

It is recommended that a "User Manual" and "Logbook", in accordance with the advice given in chapter 9 of the Health and Safety Executive publication "Controlling airborne contaminants at work – A guide to local exhaust ventilation (LEV)" [HSG258], be provided for each LEV system.

APPENDIX 1

REPORT OF INITIAL APPRAISAL OF LOCAL EXHAUST VENTILATION (LEV) PLANT

Policy: 110163 **Plant Code:** D04B11 **Previous Report:** -

Site: 1 **Schedule:** D0001 **Report Number:** - LEV1A

1. Name of Company	Steel Construction Ltd
2. Address	Bodmin Road Coventry West Midlands CV2 5DB
3. Identification of LEV plant	Fume Extraction Plant Manufacturer: Fan Engineering Serial No. FE58227 / FE58228 Plant No. LEV1
4. Location of LEV plant	Spray Area.
5. Identification of process	Spray Painting.
6. Hazardous substance(s)	Spray Paints containing: Xylene, Naphtha, Ethylbenzene, etc.
7. Regulations applicable	Control of Substances Hazardous to Health Regulations.
8. Condition at time of appraisal	Normal Operation.
9. Does the LEV control the hazardous substance(s)?	Yes, but see section 13.
10. Method used to make judgement at 9 above (e.g. visual, air flow, static pressure, etc)	Visual, Air Flow, Smoke Test and Air Sampling.
11. Condition of filter(s)	Satisfactory.
12. Are the elements of the LEV plant in good working order?	Yes, but see section 13.
13. Repairs/modifications required to ensure the LEV plant effectively controls the hazardous substance(s)	It is recommended that suitable side screens be provided to better concentrate the effects of the extraction over the spray area. It should be ensured that the correct water levels are maintained in the water troughs.
14. Intended operating performance	Minimum average capture air flow velocity required is 0.75 m/s with individual values, test points L1 to 4 and R1 to 4, not less than 0.60 m/s. Capture velocities were taken at a height of 1.3 m and 0.5 m from the water curtain.
15. Observations/notes	It is noted that the operators wear suitable respirators when spraying. It is understood that the two blower fans at the opposite side of the bay to the extractor wall are on whenever spraying is being carried out and this was the case during this examination and test.

Number of extraction points: 2 **Number to be used at any one time:** 2

I certify that on the date stated, I carried out an initial appraisal of the plant specified above and the results of my appraisal are as shown.

Date of Examination: 15/03/2011 **Date of Last Examination:** -

Competent Person: K. M. Oram **Date of Next Examination:** 15/05/2012

Signature: *K.M.Oram* **Qualification:** IEng. CMIOSH

REPORT OF INITIAL APPRAISAL OF LOCAL EXHAUST VENTILATION (LEV) PLANT

Policy: 110163 **Plant Code:** D04B11 **Previous Report:** -

Site: 1 **Schedule:** D0001 **Report Number:** - LEV1B

16. Motor Details (x2)	**Maker**	Not ascertained	**Speed (rpm)**	Not ascertained
	Power (kW)	Not ascertained	**Current (A)**	Not ascertained
17. Fan Details (x2)	**Maker**	Fan Engineering	**Type**	Axial
	Serial No.	FE58227 / FE58228	**Speed (rpm)**	Not ascertained
	Direction of Rotation	Anticlockwise	**Size (mm)**	800 dia.
	Flow Rate (m^3/s)	Not ascertained	**Static Pressure (Pa)**	Not ascertained
18. Primary Air Cleaner (x2)	**Maker**	Not ascertained	**Inlet Static Pressure (Pa)**	Not ascertained
	Serial No.	Not ascertained	**Outlet Static Pressure (Pa)**	Not ascertained
	Type	Self Induced Water Spray	**Across Filter (Pa)**	Not ascertained
	Filter Medium	Water	**Volume Flow (m^3/s)**	Not ascertained
	Discharged Air to	Atmosphere	**Condition**	Satisfactory
19. Secondary Air Cleaner	**Maker**	-	**Inlet Static Pressure (Pa**	-
	Serial No.	-	**Outlet Static Pressure (Pa)**	-
	Type	-	**Across Filter (Pa)**	-
	Filter Medium	-	**Volume Flow (m^3/s)**	-
NOT APPLICABLE	**Discharged Air to**	-	**Condition**	-

Test Point	Static Pressure (Pa)	Face Dimensions (mm)	Duct Dimensions (mm)	Area (m^2)	Capture Velocity (m/s)	Face Velocity (m/s)	Duct Velocity (m/s)	Volume Flow (m^3/s)
L1					0.81			
L2					0.78			
L3					0.61			
L4					0.73			
R1					0.70			
R2					0.90			
R3					0.88			
R4					0.71			
A - Average					0.77			

*BMV = Below Measurable Value

I certify that on the date stated, I carried out an initial appraisal of the plant specified above and the results of my appraisal are as shown.

Date of Examination: 15/03/2011 **Date of Last Examination:** -

Competent Person: K. M. Oram **Date of Next Examination:** 15/05/2012

Signature: *K. M. Oram* **Qualification:** IEng. CMIOSH

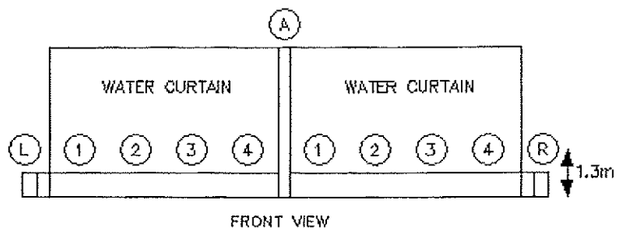
REPORT OF INITIAL APPRAISAL OF LOCAL EXHAUST VENTILATION (LEV) PLANT

Policy: 110163 **Plant Code:** D04B11 **Previous Report:** -

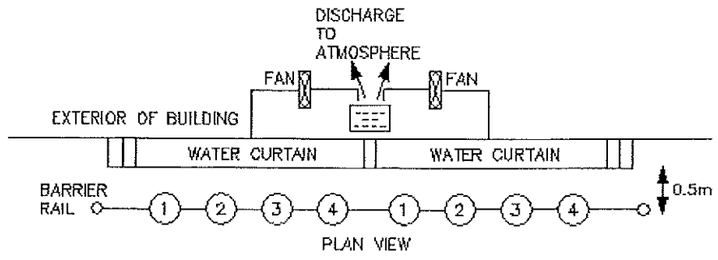
Site: 1 **Schedule:** D0001 **Report Number:** - LEV1C

1. Name of Company	Steel Construction Ltd
2. Address	Bodmin Road Coventry West Midlands CV2 5DB
3. Identification of LEV plant	Fume Extraction Plant Manufacturer: Fan Engineering Serial No. FE58227 / FE58228 Plant No. LEV1

SCHEMATIC DIAGRAM



FRONT VIEW



PLAN VIEW

I certify that on the date stated, I carried out an initial appraisal of the plant specified above and the results of my appraisal are as shown.

Date of Examination: 15/03/2011 **Date of Last Examination:** -

Competent Person: K. M. Oram **Date of Next Examination:** 15/05/2012

Signature: *K. M. Oram* **Qualification:** IEng. CMIOSH

REPORT OF INITIAL APPRAISAL OF LOCAL EXHAUST VENTILATION (LEV) PLANT

Policy: 110163 **Plant Code:** D04B11 **Previous Report:** -

Site: 1 **Schedule:** D0001 **Report Number:** - LEV1D

1. Name of Company	Steel Construction Ltd
2. Address	Bodmin Road Coventry West Midlands CV2 5DB
3. Identification of LEV plant	Fume Extraction Plant Manufacturer: Fan Engineering Serial No. FE58227 / FE58228 Plant No. LEV1

REMEDIAL ACTION

(This section to be completed by employer responsible for the LEV Plant noted above)

NOTE: The effectiveness of the remedial action should be proved by retest.

APPENDIX 2

AIR SAMPLING RESULTS

Name of Company: Steel Construction Ltd

Address: Bodmin Road, Coventry, West Midlands CV2 5DB

Sample No.	Location	Substance	Time On	Time Off	Flow Rate (l/min)	Mass Gain (mg)	Concentration (ppm - mg/m^3)
XT1362	P. Stevens / (A)	Xylene	10:21	13:31	Passive	0.070	3.10 - 13.0
		Ethylbenzene				0.023	1.00 - 4.40
		Naphtha				<0.010	<0.35 - 1.60
XT1375	S. Richardson / (B)	Xylene	10:21	13:31	Passive	0.047	2.10 - 9.10
		Ethylbenzene				0.015	0.66 - 2.90
		Naphtha				<0.010	<0.35 - 1.60

Temperature: ..... 13°C .....

Humidity: ..... 57% .....

Date: ..... 15th March 2011 .....

NOTES:

B.D.L. = Below Detection Limit
R. Dust = Respirable Dust
T. Dust = Total Inhalable Dust

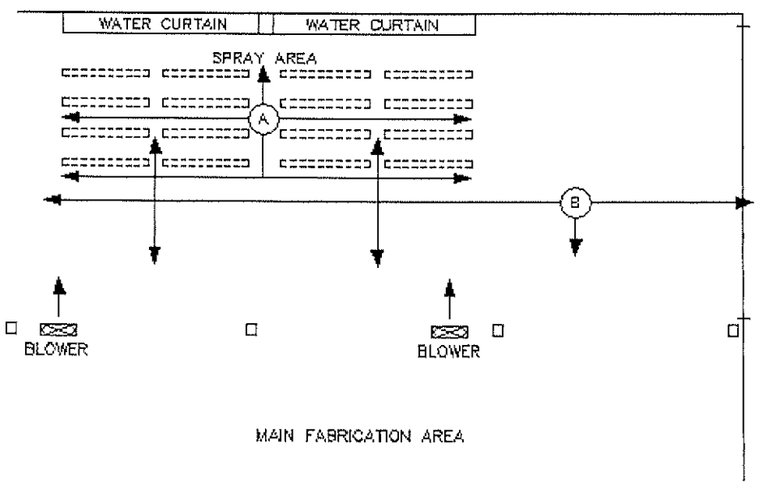
HSB Haughton Engineering Insurance Services Limited
Cairo House
Greenacres Road
Waterhead
Oldham
OL4 3JA

Form ASR1a

APPENDIX 3

Steel Construction Ltd

Air Sampling Plan



STEEL CONSTRUCTION LTD DOCUMENT (F).

STEEL CONSTRUCTION LTD RISK ASSESSMENT RECORD

HAZARD/WORK ACTIVITY ASSESSED	Spraying and Painting

LOCATION	FACTORY FLOOR

H = HIGH RISK M =. MEDIUM RISK L = LOW RISK I = INSIGNIFICANT

	SIGNIFICANT RISKS	H	M	L	I
	Inhalation of paint fumes	X			
	Contamination of skin from paint	X			
	Contamination of eyes from paint	X			
	Spills of paint		X		

WHO MAY BE HARMED	
EMPLOYEES	x
SUBCONTRACTORS	x
OFFICIAL VISITORS	x
GENERAL PUBLIC	

	CONTROL MEASURES
1	Respirator face piece to be worn with A1 filters. Protects from vapour and air born particles
2	Extraction unit to be switched on at all times when spraying paint
3	Overalls and gloves to be worn at all times to prevent contamination of the skin
4	First aid equipment including eyewash to be available at all times
5	Adequate cleaning materials to be available in the event of skin contamination
6	Paints to be kept in correct containers. Any decanting of paints is to be done in designated areas
7	Spill kits are to be kept available in the event of paint spills, and disposed of in the correct manner.

	INFORMATION, INSTRUCTION and TRAINING
	All operatives to be competent and instructed in the safe use and maintenance of painting equipment
	All operatives to be instructed in safe use and correct wearing and maintenance of air fed masks

PERSONAL PROTECTIVE EQUIPMENT					
SAFETY HELMET		EARPLUGS		RESPIRATORY PROTECTION	
SAFETY BOOTS	x	EAR DEFENDERS		Face piece with A1 filters	x
GOGGLES / VISOR					
OVERALLS	x				
LINTFREE OVERALLS	x				
GLOVES	x				

REMEMBER PPE IS ALWAYS A LAST RESORT

H. Richardson		19.1.2012
COMPLETED BY	SIGNATURE	DATE

STEEL CONSTRUCTION LTD DOCUMENT (G)

ZURICH®

THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002 (AS AMENDED) (DL2.9)

REPORT OF PERIODIC THOROUGH EXAMINATION AND TEST

Report No: 24950147/2

Policy / Contract No: NYW17605 Schedule: LEV1 ES Item No: LEV01
Freq: 12 Mths

Policy / Contract Name: STEEL CONSTRUCTION LTD
Occupier (or Owner) of Premises: STEEL CONSTRUCTION LTD
Address: BODMIN ROAD COVENTRY WEST MIDLANDS CV2 5DB

Initial Examination Details

a. Distinguishing No. and description of plant	Spraybooth with Local Exhaust Ventilation
b. Situation within premises	Main workshop Paint Spraying
c. Hazardous Substance(s)	Toluene Xylene Isocyanates V.O.C. Fume
d. Air Monitoring	Environmental air monitoring should be carried out during this process in order to quantify the exposure of persons to the hazardous substance. It should be confirmed that Workplace Exposure Limits are not exceeded. Copies of the results of such analysis should be retained for 40 years.

e. Details of Fan/Air Mover	Make	Type	Identity No	Motor HP/KW	Fan Size
	Not Marked	Axial	NM	Unable to ascertain	750mm Dia [Approx]
	Other Details	Speed (r.p.m) Stated	Direction of Rotation	Static Inlet Pressure EM (Pa)	Volume Flow (m^3/s)
	None	Unable to ascertain	Unknown	300	5.28 HWA
f. Details of Filter/Collector	Make	Type	Identity No	Filter Medium	Automatic Monitor
	Not marked	Water curtain	LEV01	Water	None fitted.
	Other Details	Static Inlet Pressure EM (Pa)	Static Outlet Pressure EM (Pa)	Differential (Pa)	Volume Flow (m^3/s)
	None	NM	300	NM	5.28 HWA

g. Details of System Velocities & Volume Flow	Point Number	VP1			
	Section	0.44m^2			
	Avg. Duct Velocity (m/s)	12 HWA			
	Volume Flow	5.28 HWA			

remedied as soon as reasonably practicable unless otherwise stated.	
12. Observations	There is no evidence that a user manual or logbook exists for this extraction system. Your attention is drawn to Health and Safety Guidance note 258 and section 9 therein. It is recommended that a user manual and logbook are created as per the guidance. Paint marks to the floor indicate that items are painted outside the capture zone of the booth and this should be prohibited. All painting should be conducted within the perimeter of the booth. The booth is open to the workshop and passes by may be affected by work being spray outside the perimeter of the booth. Consideration should be given to providing a full enclosed booth to separate the process from the general workplace and operatives working nearby. Recommend fan exhaust is vented vertically upwards as recommended in HSG258 Therein Operatives use air fed masks. Storage and maintenance procedures for the masks was not observed as there was no spraying at the time of the examination.

Repairs Carried Out

13. Name and designation of person carrying out repairs and date carried out.	

Date of previous Examination and Test: 15/11/2011
Date of this Examination and Test: 30/11/2012

Authenticated by: Peter Cheshire
Designation: Engineer Surveyor

Contact: peter.cheshire@uk.zurich.com
Telephone: 07764 149257

Date: 30/11/2012

ZURICH

THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002 (AS AMENDED) (DL2.9)

REPORT OF PERIODIC THOROUGH EXAMINATION AND TEST

Report No: 24960147/2

Policy / Contract No: NYW17605 **Schedule:** LEV1 **ES Item No:** LEV02
Freq: 12 Mths

Policy / Contract Name: STEEL CONSTRUCTION LTD
Occupier (or Owner) of Premises: STEEL CONSTRUCTION LTD
Address: BODMIN ROAD COVENTRY WEST MIDLANDS CV2 5DB

Initial Examination Details

a. Distinguishing No. and description of plant	Spraybooth with Local Exhaust Ventilation
b. Situation within premises	Main workshop Paint Spraying
c. Hazardous Substance(s)	Toluene Xylene Isocyanates V.O.C. Fume
d. Air Monitoring	Environmental air monitoring should be carried out during this process in order to quantify the exposure of persons to the hazardous substance. It should be confirmed that Workplace Exposure Limits are not exceeded. Copies of the results of such analysis should be retained for 40 years.

e. Details of Fan/Air Mover	Make	Type	Identity No	Motor HP/KW	Fan Size
	Not marked	Axial	Not marked	Unable to ascertain	750mm Dia [Approx]
	Other Details	Speed (r.p.m) Stated	Direction of Rotation	Static Inlet Pressure EM (Pa)	Volume Flow (m^3/s)
	None	Unable to ascertain	Unknown	300	4.84 HWA
f. Details of Filter/Collector	Make	Type	Identity No	Filter Medium	Automatic Monitor
	Not Marked	Water curtain	LEV01	Water	None fitted.
	Other Details	Static Inlet Pressure EM (Pa)	Static Outlet Pressure EM (Pa)	Differential (Pa)	Volume Flow (m^3/s)
	None	NM	300	NM	4.84 HWA

g. Details of System Velocities & Volume Flow	Point Number	DV1			
	Section	0.44m^2			
	Avg. Duct Velocity (m/s)	11 HWA			
	Volume Flow	4.84			

remedied as soon as reasonably practicable unless otherwise stated.	
12. Observations	This system has passed. There is no evidence that a user manual or logbook exists for this extraction system. Your attention is drawn to Health and Safety Guidance note 258 and section 9 therein. It is recommended that a user manual and logbook are created as per the guidance. Paint marks to the floor indicate that items are painted outside the capture zone of the booth and this should be prohibited. All painting should be conducted within the perimeter of the booth. The booth is open to the workshop and passes by may be affected by work being spray outside the perimeter of the booth. Consideration should be given to providing a full enclosed booth to separate the process from the general workplace and operatives working nearby. Recommend fan exhaust is vented vertically upwards as recommended in HSG258 Therein. Operatives use air fed masks. Storage and maintenance procedures for the masks was not observed as there was no spraying at the time of the examination.

Repairs Carried Out

13. Name and designation of person carrying out repairs and date carried out.	

Date of previous Examination and Test: 15/11/2011
Date of this Examination and Test: 30/11/2012

Authenticated by: Peter Cheshire
Designation: Engineer Surveyor

Contact: peter.cheshire@uk.zurich.com
Telephone: 07764 149257

Date: 30/11/2012