





Environmental Permitting (England and Wales) Regulations 2010

### INTRODUCTION

#### 1.When to use this form

This regime is known as Local Authority Pollution Prevention and Control, LAPPC. Installations permitted under this regime are known as **Part B** installations. Use this form if you are sending an application for a 'Part B' permit to Coventry City Council under the Environmental Permitting Regulations 2010 ("the EP Regulations").

### 2. Before you start to fill in this form

You are strongly advised to read relevant parts of the Defra general guidance manual issued for LAPPC, republished in 2010 and available at:

http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/manuals.htm. This contains a list of other documents you may need to refer to when you are preparing your application, and explains some of the technical terms used. You will also need to read the relevant Process Guidance ("PG") Note for your process: <a href="http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/pgnotes/">http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/pgnotes/</a>. The EP Regulations can be obtained from the link: <a href="http://www.legislation.gov.uk/uksi/2010/675/contents/made">http://www.legislation.gov.uk/uksi/2010/675/contents/made</a>

#### 3. Which parts of the form to fill in

You should fill in as much of this form as possible. The appropriate fee must be enclosed with the application to enable it to be processed further. When completed return to:

## Environmental Protection, Coventry City Council Room 314 Broadgate House, Broadgate Coventry CV1 1NH

#### 4. Other documents you may need to submit

There are a number of other documents you may need to send us with your application. Each time a request for a document is made in the application form you will need to record a document reference number for the document or documents that you are submitting in the space provided on the form for this purpose. Please also mark the document(s) clearly with this reference number and the application reference number (if you have been given one, it will be at the top of the form overleaf). If you do not have either of these, please use the name of the installation.

#### 5. Using continuation sheets

In the case of the questions on the application form itself, please use a continuation sheet if you need extra space; but please indicate clearly on the form that you have done so by stating a document reference number for that continuation sheet. Please also mark the continuation sheet itself clearly with the information referred to above.

#### 6. Copies

Please send the original and three copies of the form and all other supporting material, to assist consultation.

#### 7. If you need help and advice

We have made the application form as straightforward as possible, but please get in touch with Environmental Protection on 0500 834333 or email <a href="mailto:env.protection@coventry.gov.uk">env.protection@coventry.gov.uk</a> if you need any advice on how to set out the information we need.

# Application For An Environmental Permit Part B

\* required information

Your reference	CV3 2AN		
Are you an agent acting on behalf of the applicant Tick 'no' if you are applying	NO $\sqrt{}$ on your own behalf or on behalf of a	business you ov	vn or work for.
Applicant details: *First name	Louise		
*Family name	Bailey	£.001	
*E-mail	louise@toc-ltd.co.uk		
Main telephone number (Include country codes)	024 76450020		
Other telephone number (Include country codes)			
Indicate here if you would pr	refer not be contacted by telephone		
Are you: Applying as a business or or	ganisation, including a sole trader	YES √	Line of the second
Applying as an individual			NO .
	wned by one person without any sp		
following a hobby.	plying so you can be employed, or f	or some other pe	rsonal reason, such as
following a hobby.  Applicant Business	plying so you can be employed, or find the UK with Companies House?	YES	rsonal reason, such as
following a hobby.  Applicant Business	in the UK with Companies House?		NO √
following a hobby.  Applicant Business *Is your business registered	in the UK with Companies House?	YES √	NO √ s is registered, use it's
following a hobby.  Applicant Business *Is your business registered *Is your business registered	in the UK with Companies House? outside the UK?	YES √ If your businest registered nam	NO √ s is registered, use it's
following a hobby.  Applicant Business *Is your business registered *Is your business registered *Business name	in the UK with Companies House? outside the UK? T.O.C LTD	YES √ If your businest registered nam	NO √ s is registered, use it's e
following a hobby.  Applicant Business *Is your business registered *Is your business registered *Business name *VAT number	in the UK with Companies House? outside the UK?  T.O.C LTD  272687034	YES √ If your businest registered nam	NO √ s is registered, use it's e
following a hobby.  Applicant Business *Is your business registered *Is your business registered *Business name *VAT number *Legal status *Your position in the	in the UK with Companies House? outside the UK?  T.O.C LTD  272687034  LIMITED COMPANY	YES √  If your business registered nam Put "none" if your	NO √ s is registered, use it's e ou are not registered for VAT
Applicant Business *Is your business registered *Is your business registered *Business name *VAT number *Legal status *Your position in the business	in the UK with Companies House? outside the UK?  T.O.C LTD  272687034  LIMITED COMPANY  DIRECTOR	YES √  If your business registered nam Put "none" if you  The country who business is located to the country who business is located t	NO √ s is registered, use it's e ou are not registered for VAT

1 · · · · · · · · · · · · · · · · · · ·		
District		
*City or town	COVENTRY	
County	WARWICKSHIRE	
*Postcode	CV3 2AN	
*Country	UK	
Section 2 of 11 APPLICANT DETAILS		
*Name of installation	ICI CLEANING PLANT	
Please give the address of t		
*Building number or name	T.O.C LTD	
*Street	BRANDON ROAD	
District		
*City or town	COVENTRY	
County		
*Postcode	CV3 2AN	
*Country	UK	
Telephone number		
Ordnance Survey national grid reference 8 characters, for example SJ123456	SP3816077913	
Please give details of any ex licences or water discharge	kisting LAPC or IPC authorisation for consents, excluding reference numb	the installation, or any waste management ers(s) and type(s)
Section 3 of 11		

	on requested about the "Operator", vistallation in accordance with the perr		e person who it is proposed
Full name of company, partnership or corporate body	T.O.C LTD		
Trading/business name (if different from above)			
Registered Address Is this address the same as	the address given in section 1?	YES	
If "no" enter address below:		V	
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	
If "no" enter address below:		<u> </u>	
Building number or name		The second secon	
Street			
District			
City or town			
County			
Postcode		]	
Holding Companies Is the operator a subsidiary meaning of section 1159 of 1	of a holding company within the the Companies Act 2006?	YES	NO √

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.
Degreasing work pre paint finishing Cleaning parts for welding process Cleaning
Please identify any directly associated activities that are, or are proposed, to be carried out on the same site
<ul> <li>which:</li> <li>Have a technical connection with the activities in the stationary technical unit</li> <li>Could have an effect on pollution</li> </ul>
Spray coating metal parts Chapter 6 Section 7 Part B
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
Surface cleaning Chapter 6 Section 7 Part B
Directly associated activities
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
Site Maps
Please provide a suitable map showing the location of the installation, clearly defining the chimney location and oil storage tank
Document reference Excel doc: SP EX 04
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 Excel doc: SP EX 04

#### 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.

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.

- 1. ICI Degreasing plant using Methylene Chloride 50040
- 2. Roller shutter top closed at all times except when loading/unloading
- 3. Green light system informs user plant is ready to load/reload
- 4. Operator trained to empty degreaser using crane allowing any excess fluid to drain back into unit
- 5. A "Closed" Cold water System, inside the unit cools vapours and causes the degreasing fluid to fall back in to the base of the plant. This closed cold water system is chilled by a "chiller" unit to the side of the plant.
- 6. An extraction unit and LEV system removes any excess vapours from the top of the plant and runs continually when plant is switched on.
- 7. Majority of emissions are waste gases. See report.

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

- 1. 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)

Annual testing carried out on all extraction units.

Previous assessment carried out January 2012, please see attachment ref: Ex 012 7036 R W Vesey Ltd Annual assessment carried out January 2013 including Stack sampling degreaser plant. Please see reports.

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.

There is no abatement in LEV extraction to atmosphere at present.

Operator trained to run degreaser using the roller shutter door at all times to limit emissions. Roller shutter door opened and closed on average 30 – 50 times a day.

Degreaser cleaned out when plant is cold to limit emissions.

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.

Please refer to the Hazard Identification and Risk Assessment 1, 2, 14, 47, 56

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.

We monitor all LEV throughout the factory as required by regulations, previous findings and our external contractor R W Vessey Ltd

Our next inspection of LEV is due January 2013 when we will include stack sampling with our Exhaust Ventilation examinations.

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

Regular examinations and monitoring by externally qualified personnel, daily checks on the plant, one trained and dedicated plant operator provided with correct training and PPE, annual checks on functioning of over head jib and hoist. Inspection of the plant tank/chamber when emptied (performed as and when required, typically between 1-2 times annually)

Signage posted to top surface of plant on personal safety requirements and correct operation of plant.

## 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?)

We are aware of:

Herald Way Marsh SP380769Biological and Geological SSI

However this is not in relation to TOC Ltd, but a known complaint in the area.

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

 NO	***************************************
UNKNOWN	

### 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?

[	
	NO
	UNKNOWN
	•

#### Section 8 of 11

#### **ADDITIONAL INFORMATION**

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

It is clear from our recent stack sample testing carried out in January we need to dramatically reduce emissions from our degreasing plant.

The sample testing showed us that there is a large loss in emissions when the plant is operating both when the roller door is closed and more so when open.

We have been looking into our, as we see it, two options.

#### Option 1 - Reduce the need for a permit.

To source a new cleaning product that would work in conjunction with our degreasing plant at the same time giving us the cleaning finish we require.

Samples to be tested to suit our finished quality standards.

We have looked into Mykal cleaning methods and will be sampling shortly.

Orapi Applied Limited is visiting us after Easter with recommendations for alternative cleaning.

Layton Technologies has also been contacted and will be visiting our site shortly once a product matrix relating to sizes and weights has been identified with a view to supplying us with a new/used degreasing plant.

They have suggested any modifications to our ICI plant may not enable us to comply

Graham Butcher of Stowlin Croftshaw suggested several initial modifications that should have an immediate effect on emission levels although emissions would have to be heavily monitored for results as well as a change in cleaning product.

#### Option 2 - Modify our Plant

- 1. Run chiller unit 24/7 -
- 2. Increase the chiller coils inside plant to wrap around all 4 internal sides of bath.
- 3. Lower the running temperature of chiller unit implemented
- 4. Improve seal to roller door and reduce the opening to storage void for roller door.
- 5. Monitor usage of cleaning product before and after modifications..
- 6. Monitor emissions to stack if necessary install abatement to stack.

Along with our annual testing of our ICI plant we will include stack sampling to check emissions at the same time and record findings.

#### Fugitive emissions.

Lidded bins (O 6 Collected waste) introduced and stored along side degreaser and wet spray booth – Implemented.

Storage containers for (O 8 Solvents recycle) labelled and stored to the rear of the property - Implemented

Yellow trug bucket containing absorbent grit sited in front of degreasing plant – current

#### Maintenance.

When replenishing methylene Chloride in plant operator presently fills degreaser using hand held container. Within the next month we hope to implement a tap system that will illuminate the need for this and reduce emissions during this process.

Our preferred option is to change our degreasing plant as we are very keen to negate the need for a permit. We are committed to this change within the next 6 months.

Layton Technologies are working closely with us to achieve our Emissions limit.

Section 9 of 11 ANNUAL CHARGES			
If we grant you a permit, you in revocation of your permit a	will be required to pay an annual sub and you will be not be able to operate address you wish invoices to be sen n your finance section	your installation	
Contact name	Mrs A Taylor		
Building number or name	T.O.C LTD		
Street	BRANDON ROAD		
District			
City or Town	COVENTRY		
County	WARWICKSHIRE		
Postcode	CV3 2AN		
Telephone number	024 76450020		
Other telephone number			
Please give company purchase order number or any other reference number			
Section 10 of 11			
kept from the public register confidentiality? Please provide full justification, considering the	FIALITY e application that you wish to justify be on the grounds of commercial	peing	NO V
definition of commercial confidentiality within the PPC Regulations			
	e application that you believe should on the grounds of national security?	be	NO √
	be used by the local authority to produced to monitor compliance with the		

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

PAYMENT DETAILS This fee must be paid to the	authority.		
* Fee Amount	£1579.00		
Postal Address			
Building number or name	T.O.C LTD		
Street	Brandon Road		
District			
City or Town	Coventry		
County	Warwickshire		•
agent acting on behalf of the I/We certify:  No offences have been con	applicant?"	swered "Yes" to the question "Are yo hich are relevant to my/our competelete as appropriate*)	ence to
* Full name	Louise Bailey		
* Capacity	Director		
Date (dd/mm/yyy)	28/03/2013		

#### no value solvents recycling sent for Low and Storage release still bottoms e.g. Wipes, or awaiting Degreased products degreaser Collected Solvents Recycle waste 0 8 0 4 Residual VOC in Storage area 03 Waste paint release -Storage 0 4 ICI DEGREASER ACTIVITY **LEV 08** Collected waste 90 Residual VOC in products Pre-wet spray storage O 4 Venting Storage Solvent Chiller WET SPRAY BOOTH LEV 11 unit 03 Emission waste gases SOLVENT MANAGEMENT PLAN T.O.C LIMITED Pre-powder coat storage/parts Waste gases Residual VOC in Purchased and solvent used 03 01 OFF LINE LEV 09 paint store) POWDER (Yellow Solvent storage BOOTH **LEV 10** 디

Rear Yard HME 115C HME 115B Wet Spray Booth LEV 11 HME 115A HME 115A HME 115A HME 115A HME 115B Hillar Drillis Pillar Drillis Rivet Assy Lathe Toilets Store Booth LEV 10 CNC Milling MC Milling MC Milling MC Milling MC Pete								
HME 115C  HME 115B  Wet Spray Booth  LEV 11  HME 115A  HME 115A  HME 115A  Pillar Drills  Rivet Assy  Rivet Assy  Coff line Booth  LEV 9  Oven  Powder  Booth  LEV 10  Inspection  Office Area  Inspection			630 620	512		HME Presses 100		Lev 7, 6
HME 1158  Wet Spray Booth  LEV 11  HME 115A  Pillar Drills  Pillar Drills  Rivet Assy  Rivet Assy  Oven  Powder  Booth  LEV 9  Oven  Powder  Booth  LEV 9  Oven  Powder  Booth  LEV 9  Oven  Powder  Booth  LEV 10  IEV 10		E 115C					Guyson	
HME 115A  HME 115A  Pillar Drills  8 × Lathes  Rivet Assy  Various smaller MCs  LEV 9  Oven  Powder  Booth LEV 10  LEV 9  Office Area  Inspection	7		7+000 × 1200 × 1000 × 1		11 TO 12 TO	75	75 Drill	Flat Bed Saw
Pillar Drills Pillar Drills Pillar Drills Pillar Drills  8 x Lathes Rivet Assy  Various smaller MCs  LEV 9  Oven Powder Booth LEV 10  Cffice Area Inspection		e rrop	wet spray bootil LEV 11		CCT JINIU	noT	Disc Sander	LEV 5
8 x Lathes  Rivet Assy  Various smaller MCs  LEV 9  Oven  Powder  Booth  LEV 10  IEV 10  Office Area  Inspection	HM	E 115A		Heater	HME 55	55	55 Extractor Lev 4	
Section 8 × Lathes  Rivet Assy  Narious smaller MCs  Off line Booth  LEV 9  Oven  Booth  LEV 10  IEV 10		ar Drills	Pillar Drills	Pillar Drills, Pedrazoli Saw	ıli Saw	Press 155	Mood	Welder
8 x Lathes Rivet Assy  Various smaller MCs  Off line Booth  LEV 9  Oven  Powder  Booth  LEV 10  IEV 10	5 1055			Ward Lathe			\$\$\$\$	Brazing
8 x Lathes Rivet Assy  Various smaller MCs  LEV 9  Oven Powder Booth LEV 10  LEV 10  IEV 10	-					Cincinnati		•
Various smaller MCs Off line Booth LEV 9 Oven Powder Booth LEV 10 IEV 10	× 8	Lathes	Rivet Assv	Lathe	Band Saw	Millacron		
Various smaller MCs  Off line Booth  LEV 9  Oven  Booth  LEV 1.0  IEV 1.0				Lathe		j j		Spot
Various smaller MCs  Off line Booth  LEV 9  Oven  Powder  Booth  LEV 10  IEV 10				<u> </u>		Dekel		Welding
Various smaller MCs  Off line Booth  LEV 9  Oven  Powder  Booth  LEV 10				Pillar Drills				
Various smaller MCs  Off line Booth  LEV 9  Oven  Booth  LEV 10  Inspection				Bridgeport	JT.	2 x Lathes		
Oven  Off line Booth  LEV 9  Oven  Booth  LEV 10  Inspection		:		Tapping MC		Amada		_
Off line Booth LEV 9 Oven Powder Booth LEV 10 IEV 10	Vari	ious smaller MCs		-				Spot Welder
Oven Powder Booth LEV 9  LEV 9  LEV 10  LEV 10  LEV 10				Pillar drill   Newall	Heater	Jones & Shipman		
Oven Powder Booth LEV 10  Office Area Inspection			Off line Booth	Cooksley		rev 8		Robot Welders 1
Powder Booth LEV 10 Office Area Inspection	Ove	Ċ	LEV 9			Degreaser		LEV 3
Booth LEV 10 Inspection				Pillar Drills	Wire	Tube Bender		Welder
Inspection		Booth			Eroder			-
Inspection		חד א זו		CNC	Bridgeport			Robot 2 LEV 2
Inspection				Milling MC				Welder
Inspection						Guillotine		-
Inspection	<b></b>							Robot 3
		ce Area		Pete	Γ	Heater		LEV 1
				John	Goods Inwards	ards Steel Store		Sub Station
Front Reception		Front	Reception					

Front Yard



# STACK EMISSIONS MEASURMENTS

Tools of Coventry Ltd
January 2013

Carried out on

14<sup>th</sup> January 2013

**Report Number: 2289/1218** 

Report Written By:

**S Cletheroe** 

**Senior Site Engineer** 

Date: 06/02/2013

Report Checked By:



S Lockwood

**Senior Consultant** 

Date: 06/02/2013









The personnel carrying out the monitoring work for this exercise are qualified under the MCERTS scheme as follows:

### 1. Stephen Lockwood

Senior Consultant
MCERTS Registration No MM 03 407

Level 2 (team leader)

Technical Endorsements held:

TE1 (Particulate monitoring by isokinetic sampling techniques)

TE4 (Gases / Vapours by instrumental techniques)

Certificate Number:

Sira MP 04 217

Date of certification:

12 October 2004

Date of re-certification:

28 September 2009

Renewal date:

12 October 2014

#### 2. Stephen Cletheroe

Senior Site Engineer MCERTS Registration No MM 03 408

Level 2 (team leader)

Technical Endorsements held:

TE1 (Particulate monitoring by isokinetic sampling techniques)

Certificate Number:

Sira MP 04 226

Date of certification:

March 2012

Renewal date:

March 2017

The MCERTS scheme is operated by SIRA Certification Service on behalf of the Environment Agency.

The scheme involves written examinations and interviews and was introduced to ensure that stack monitoring work is carried out to the required standards by suitably qualified personnel.

# **CONTENTS OF REPORT**

- 1 Introduction
- 2 Summary of results
- 3 Emission limits and comments on results

# Sampling data

4 Dichloromethane sampling data summary sheets

## Test methods

5 Dichloromethane

# 1.0 Introduction

1.1 This exercise consisted of the following test carried out on the systems listed below

#### 1. De-Grease Tank

Tank Lid "open", (lid is open during loading and unloading and closed during the de-greasing cycle).

Tank in normal use

Tank up to normal working temperature

Extraction system running

#### 2. De-Grease Tank

Tank Lid "closed" (continuously)

Tank not in use

Tank up to normal working temperature

Extraction system running

- (a) Measurement of Dichloromethane using BS EN 13649 method.
- 1.2 The tests were carried out as instructed by the Local Authority to measure the dichloromethane emissions during different operating conditions of the de-grease tank.

# 2.0 Summary of results

2.1 The monitoring exercise returned the following results:

System	Emission Limit	Result	Units
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De-Grease Tank			
Sample 1 - Tank Lid "Open"	No limit set	350.1	mg/m³C
Sample 2 - Tank Lid "Closed"	INO MINIC SEC	108.7	mg/m³C

2.2 All the results are expressed at the following reference conditions:-

Temperature

273 °K

Atmospheric pressure

101.3 Kpa

# 3.0 Emission limits and comments on results

3.1 There is no dichloromethane emission limit currently set for the de-greasing process and therefore no comment can be given regarding the results of the monitoring exercise.

4.0 (a) Dichlor	omethane Sam <sub>l</sub>	pling Data Sumi	mary Sheet
Client Details		Plant Details	Date & Time
Tools of Coventry		De-Grease Tank Tank Lid - Open	14th January 2013 10:20
System schematic		rank Lid - Open	10.20
6	m duct 150mm dia		
	Sample Location	n	
<b>←</b>	2.5m hose	,	Slots
<u> </u>	150mm dia		
$\parallel \parallel \parallel \parallel$	~	V	
Ta Centrifugal fan	Tank Lid al fan		
		De-Grease Tank	
Stack Temp	Stack velocity	Duct diameter	Efflux rate
20 °C	13.5 m/sec	150 mm	859.2 m³/hr
Pump I/D	Sample rate	Sample duration	Volume sampled
SK1	100.0 ml/min	90 mina	9 9 litron
Tube reference	100.0 ml/min Lab reference	88 mins Analyte	8.8 litres Absorbed weight
TOC 140101	729918	Dichloromethane	20300 μg
Emission co	encentration	Result corre	ected to STP
2306.8	mg/m³	2475.8	mg/m³
Expressed		<b>)</b>	f emissions
350.1	mg/m³	2.0	Kg per hour

## 4.0 (b) Dichloromethane Sampling Data Summary Sheet Client Details Plant Details Date & Time De-Grease Tank 14th January 2013 Tools of Coventry Tank Lid - Closed 11:50 System schematic 6m duct 150mm dia Sample Location Slots 2.5m hose 150mm dia Tank Lid Centrifugal fan De-Grease Tank Stack Temp Stack velocity **Duct diameter** Efflux rate 23 °C 13.5 m/sec 150 mm 859.2 m3/hr Pump I/D Sample duration Sample rate Volume sampled 100.0 ml/min 109 mins 10.9 litres Tube reference Lab reference Analyte Absorbed weight TOC 140102 729919 Dichloromethane 7730 µg **Emission concentration** Result corrected to STP 709.2 mg/m<sup>3</sup> 768.9 mg/m<sup>3</sup> Expressed as carbon Mass rate of emissions 108.7 mg/m<sup>3</sup> 0.6 Kg per hour

# 5.0 Monitoring method - Dichloromethane

- 5.1 The method used for the tests was as described in BS EN 13649.
- A low volume flow air sample pump is used to draw a known volume of air through a tube containing activated charcoal beads, which absorb any organic vapours present. The tube is analysed in an approved laboratory, by gas chromatography techniques. The laboratory report the amount of each specified solvent absorbed, from which the concentration in the air sample can be calculated. Results can be expressed either as mg/m3 or as parts per million (ppm).