PERMIT REFERENCE: PPC 058

Stadco Coventry Ltd
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales)
Regulations 2000 as amended

Process Address	Stadco Coventry Ltd Holbrook Lane Coventry CV6 4AW
Process Type	Coating of vehicle panels
Current Operator	Stadco Ltd Harlescott Lane Shrewsbury Shropshire SY1 3AS
Previous Operator	N/A
Date of Application	1st April 2004
Date Permit Issued	25th March 2005

POLLUTION PREVENTION & CONTROL ACT 1999
POLLUTION PREVENTION & CONTROL (ENGLAND AND WALES) REGULATIONS 2000

DOCUMENT A : PERMIT

Stadco Coventry Ltd

Reference Number PPC/058

Coventry City Council ("the Council") in accordance with Section 10(2) of the Pollution Prevention & Control (England and Wales) Regulations 2000 ("The Regulations"), hereby permits:

Stadco Coventry Ltd

Whose registered office is:

Stadco Ltd
Harlescott Lane
Shrewsbury
Shropshire
SY1 3AS

to operate a Part B installation involving a coating activity, as prescribed in Section 6.4 Part B of Schedule 1 to The Regulations, at:

Stadco Coventry Ltd
Holbrook Lane
Coventry
CV6 4AW

The permit is subject to the conditions specified in this document consisting of 15 pages and comprising documents A, B and C, plan PPC/058/A and Appendix 1.

Signed..... .....
Alan Bennett, Head of Environmental Health
A person authorised to sign on behalf of the Council

Dated ……25/03/2005……

SCOPE

The installation comprises not just any relevant unit carrying out a Part B activity listed in Schedule 1 to the Regulations, but also directly associated activities which have a technical connection with that activity and which could have an effect on pollution.

All pollutant concentrations shall be expressed at reference conditions of 273K and 101.3kPa, without correction for water vapour content.

Technical Guidance documents used in the preparation of this document:

- Secretary of States Guidance Note PG6/23(04) – The Coating of Metal and Plastic
- Secretary of State's Guidance – General Guidance Manual on Policy and Procedures for A2 and B installations. ISBN 0-85521-028-1

Date Annual Fee Required:	1st April of each financial year
Date For Full Compliance:	Date permit issued
Permit Prepared By:	Michelle Muller
Permit Checked By:	Phil Parkes

LEGISLATION

1. Pollution Prevention and Control Act 1999.
2. Pollution Prevention and Control Regulations 2000 as amended, schedule 1 as amended

BRIEF DESCRIPTION OF THE INSTALLATION REGULATED BY THIS PERMIT

Definitions referred to in this permit

- An **Activity** is an industrial activity forming part of an installation. Different types of activity are listed within Schedule 1 of the PPC Regulations and are broadly broken down into industrial sectors. Other “associated” activities may also form part of an installation.
- An **Installation** comprises not just any relevant unit carrying out a B activity listed within Schedule 1 to the PPC Regulations, but also directly associated activities which have a technical connection with a schedule 1 activity and which could have an effect on pollution.
- An **Operator** is the person (eg a company or individual) who has control over the operation of an installation.
- **Volatile organic compound (VOC)** shall mean any organic compound having at 293K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.
- **Organic solvent** shall mean any VOC which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, or is used as a cleaning agent to dissolve contaminants, or as a dissolver, or as a dispersion medium, or as a viscosity adjuster, or as a surface tension adjuster, or a plasticiser, or as a preservative.
- **Stack** includes structures and openings of any kind from or through which substances may be emitted to air.
- **Duct** includes enclosed structures through which gaseous substances may be conveyed.
- **Process vent** includes open terminations of ducts.
- **Authorised Officer** shall mean an officer authorised to carry out duties under the Pollution Prevention and Control Act 1999 and subordinate regulations
- **Logbook** shall mean any electronic or paper means of storage of the required information as agreed by the regulator
- **Local Authority** shall mean Coventry City Council
- **"m"** means metre
- **"m/s"** means metres per second

The general location of the Authorised Process is marked in red on the attached plan PPC/058/A page X. The Installation boundary is marked in red on the attached plan.

Note to Officers and Operator: Due to proposed changes that will affect the contents of this permit, the contents have not been reviewed. A complete review of the contents of this document must be undertaken before the end of 2005.

Description of Installation

Materials containing volatile organic solvents such as coatings, or cleaning solvents, are delivered in sealed containers to the central paint store or directly to their point of use.

Metal components can be coated in one of several areas depending on the model type.

Electrophoretic Dip Area
Metal components are loaded onto an automatic line and cleaned with an Alkali Degreaser, Phosphate spray, cold water rinse and a trivalent chrome rinse. This prepares the components for coating in the dip plant.

Components are then dip painted in a large dipping tank with water based two-pack primer paint. Electrophoretic dip painting is a process where by the metal components and the paint are electrically charged at opposite polarities (i.e. positive and negative), thus they are attracted to each other aiding adhesion.

Components are automatically removed from the dip tank and the paint dried ("stoved") at a metal temperature of 180°C in the stoving ovens. The emissions from the stoving oven are passed through a gas-fired incinerator before discharge to atmosphere.

Surfacer Spraying Area (Sealer Booth)
Metal components are loaded onto an automatic line and manually sprayed within the Surfacer Spray booth employing hot airless electrostatic spraying techniques. Again this technique uses opposite polarity charging to attract the paint particles to the component, in order to aid adhesion.

Following spraying, the components are automatically transferred to the curing ovens to be heated to a metal temperature around 150°C to 160°C.

Prototype Area
Paints, diluents and cleaning solvents are delivered to and stored in the fireproof cupboard located in the prototype area**.**

Vehicle components or models are manually loaded into and sprayed in the Nova Verta combined spray booth and oven using high volume low-pressure (HVLP) guns.

Components or models are then oven dried in the Nova Verta combined Spraybooth and oven.

Table 1

List of Process Areas within the Installation and Associated Emission Points, Pollutants of Concern and Abatement Plant Required

Row Number	Area/Machinery Identification	Pollutants Emitted	Emission Limit in Permit	Abatement Plant Required
1	Pre-treatment Line	None	None	None
2	Electrophoretic Dip Plant	VOC's	None	None
3	Stoving Oven	VOC's	None	None
4	Incinerator	Nitrogen oxides VOC's Carbon monoxide	1.4	None
5	Surfacer booth	Particulates VOC's	1.4	Water filtration system
6	Curing Oven	VOC's	None	None
7	Prototype booth	Particulates VOC's Isocyanates	1.4	Dry filters

DOCUMENT B

CONDITIONS

All conditions shall have immediate effect unless stated otherwise.

1.0 EMISSION LIMITS AND CONTROLS

1.1 All emissions to air shall be free from offensive odour outside the installation boundary, as perceived by the Local Authority Inspector.

1.2 There shall be no emissions of particulate matter noticeable beyond the installation boundary.

1.3 All paints, diluents and cleaning solvents used in the process except those coatings used in the prototype spraybooth shall comply with the organic solvent specification as detailed in Clause 20 of the Secretary of States Guidance Note PG 6/23(04).

1.4 The following emission limits shall not be exceeded except in accordance with clause 2.4 of this permit.

a) Total particulate matter from the surfacer and prototype Spraybooths: 50mg/m^3 (as a 30 minute mean)

b) Carbon monoxide from the electrocoat oven incinerator: 100mg/m^3 (as a 30 minute mean)

c) Nitrogen oxides (measured as nitrogen dioxide) from the electrocoat oven incinerator: 100mg/m^3 (as a 30 minute mean)

d) Sulphur dioxide from all processes / activities using gas oil: 0.2% (before 01/01/08) and 0.1% (from 01/01/08) (wt/wt sulphur in fuel)

e) Volatile organic compounds (expressed as total carbon excluding particulate matter) from the prototype booth during spraying and baking : 50mg/m^3 (as a 30 minute mean)

The reference conditions for emission limits is 273.15K, 101.3Kpa, without correction for water vapour.

1.5 The introduction of dilution air to achieve the emission concentration limits in this authorisation is not permitted. Exhaust flow rates should be consistent with the efficient capture of emissions.

1.6 All coatings shall be applied using airless electrostatic spraying techniques except in the case of the prototype booth (where high volume low-pressure guns shall be utilised) and the electrophoretic dip plant.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

2.1 Monitoring to demonstrate compliance with clause 1.4 shall be undertaken in accordance with the appropriate standard – (see PG 6/23(04)) and shall not take place without prior approval from the Local Authority.

2.2 The Local Authority shall be notified at least 14 days in advance of any monitoring to demonstrate compliance with clause 1.4. This notification shall include the proposed date and time of monitoring, the pollutants to be tested for, and the methods to be used.

2.3 The results of monitoring to comply with 1.4 shall be submitted to the local authority within 8 weeks of the sampling taking place.

2.4 To demonstrate compliance with 1.4 (a) in relation to the prototype booth a manufacturer's guarantee supported by test data shall be submitted to the local authority for approval. In the absence of such an approved guarantee the operator shall comply with clauses 2.1, 2.2 and 2.3.

2.5 The incineration temperature of the electrocoat oven oven incinerator shall be continuously monitored. The temperature of the incinerator shall remain above 700°C.

2.6 The continuous temperature monitoring equipment serving the electrocoat oven incinerator shall be calibrated to ensure correct functioning at least once in every 12 month period. Records of this calibration shall be retained on site for a minimum of 2 years and shall be made available to the Local Authority Inspector on request.

2.7 Emissions from the surfacer and prototype spraybooths shall be tested for total particulate matter at least once a year in accordance with the main procedural requirements of BS ISO 9096:2003 to demonstrate compliance with Clause 1.4 above.

2.8 Emissions from the electrocoat oven incinerator shall be tested for carbon monoxide and nitrogen oxides at least once a year to demonstrate compliance with Clause 1.4. The following standards shall be used: ISO 12039 and ISO10849 respectively.

2.9 Emissions from the prototype spraybooths shall be tested for volatile organic compounds at least once every 12 months to demonstrate compliance with clause 1.4 (e) (VOC limit). The continuous flame ionisation detecter method EN 13526 shall be used.

2.10 A record shall be kept of the products used in the prototype area that contain isocyanates to include identification of the product and the total amount used. A summary of this information shall be submitted to the local authority every 12 months in conjunction with the information required by clause 3.1.

3.0 OPERATIONAL CONTROLS

3.1 A detailed record shall be kept of all organic solvents used in the process to include coatings diluents and cleaning solvents. This record shall be submitted to this Local Authority once every 12 months and shall include the following information:

a) The name of the product and its classification in accordance with clause 20 of Secretary of States Guidance Note PG6/23(97).

b) The total amount of solvent used in each product in grams of solvent per litre of product.

c) The proportion of individual products in the ready-to-use mixed products where appropriate.

d) The total amount of each product used in the previous 12-month period.

f) The total amount of solvent used in the previous 12-month period in tonnes, discounting solvents despatched for recycling or reuse.

3.2 The liquor of the wet scrubber serving the surfacer spray booth shall be continually dosed automatically with anti-foaming agent in accordance with the manufacturers instructions.

3.3 Any fresh water used to replace the liquor of the wet scrubber serving the surfacer spray booth shall be dosed with anti-foaming agent in accordance with the manufacturers instructions prior to its' use.

3.4 The level of the liquor in the wet -scrubber serving the surfacer spray booth shall be manually checked once per day and manually increased if the liquor level is below the level required for correct working order of the scrubber. The manual checks and any water additions made shall be recorded in a process logbook.

3.5 The circulation of the liquor in the wet scrubber serving the surfacer spray booth shall be continually monitored. In the event of pump failure, an audible alarm shall be activated and the spraying of coatings shall cease and not recommence until the cause of the failure has been identified and remedied. Any such failures shall be recorded in a process logbook detailing the cause of the failure and the remedial action taken. The logbook shall be available to the Local Authority Inspector on request.

3.6 The prototype booth shall be fitted with a pressure gauge and an audible or visual alarm to warn of over pressure. In the event of over pressure the alarms shall be activated and the booth extraction system shall automatically cease. The application of coatings shall cease and not continue until the cause of the fault has been identified and remedied. The fault and remedial action shall be recorded in the process logbook.

3.7 The automatic shutdown and alarm systems of the wet scrubber serving the surfacer spray booth, and the prototype booth shall be tested for correct working order at least once every 4 weeks. Records of such tests shall be kept including any faults noted and remedial action taken, and retained on site for a minimum of 2 years, being made available to the Local Authority Inspector on request.

3.8 The cleaning of spray guns and other equipment shall only be carried out through the use of a closed loop cleaning system.

3.9 The spray out of spray guns following cleaning shall only take place within the closed loop cleaning system and not within the spray booths.

3.10 Spraying of components shall only be carried out in the dedicated spray booths.

3.11 The amount of residual organic solvent bearing material left in drums and other containers shall be minimised. All full, or nominally empty containers which hold or have held materials which contain organic solvents shall be stored closed in the Central Paint Store, local paint mixing rooms or the wash store. All containers that hold or have held diluents or cleaning solvents must have lidded containers.

3.12 The bulk storage tank for electrocoat resin shall be fitted with a tank contents measuring device, a visual level indicator and a high level alarm to warn of overfilling. Deliveries of electrocoat resin shall only be undertaken in the presence of a competent person.

3.13 The bulk storage tank shall be sited over an impervious bund capable of holding 110% of the capacity of the storage tank.

3.14 The delivery connections to the bulk storage tank shall be located within a bunded area, and the connections to the bulk storage tank shall be fixed and locked when not in use

3.15 The carbon filters and fibre filters serving the prototype booth shall be replaced at a minimum frequency of every 140 operating hours, or at another frequency agreed with the Local Authority.

3.16 Emissions created from the dry sanding of components in the prototype area shall not be emitted to atmosphere but extracted through the bag dust collection system and back into the workplace. Full bags shall be changed as necessary.

3.17 Waste materials that are likely to contain particulate matter such as spent filters including the carbon filters serving the prototype booth shall be stored in sealed bags of containers whilst awaiting disposal.

4.0 STACKS, DUCTS AND PROCESS VENTS

4.1 Emissions from the electrophoretic Primer Dip Stoving Oven shall only be emitted via the incinerator.

4.2 Emissions from the spraying of coatings in the Surfacer spray booth shall only be emitted to atmosphere via the downdraught water-scrubber filtration system. Emissions from the 'flashing off' of components shall only be emitted via the proper process exhausts. The height of the final discharge point shall be 3m above roof ridge. The linear velocity within the stack shall not exceed 9m/sec.

4.3 Emissions from the prototype spray booths shall only be emitted via the Dry Back Filter. The final discharge height of the stack to atmosphere shall be at least 3m above roof ridge level.

4.4 All spraybooths, ovens and their associated stacks and process vents shall be inspected at least once in every 12 month period for damage, wear and tear, and correct functioning. Records of such inspections shall be kept to include any defects noted and repairs made, and retained on site for a minimum of 2 years being made available to the Local Authority Inspector on request.

5.0 GENERAL OPERATIONS

5.1 The operator shall undertake regular cleaning and preventative maintenance including inspection and repair/replacement on all plant and equipment concerned with the emission, capture, transport and control of emissions to atmosphere. Where necessary manufacturers guidelines shall be used to determine the regularity of maintenance. Records of preventative maintenance including inspections and any works undertaken shall be kept on site and made available to the local authority inspector on request.

5.2 Spares and consumables for plant and equipment used in the installation in particular that subject to continual use or wear shall be held on site or shall be available at short notice. Such plant or equipment shall not be used unless that plant or equipment is capable of working in accordance with the conditions of this permit.

5.3 Staff at all levels shall receive the necessary training and instruction in their duties relating to control of the activities and emissions to air. Records shall be kept which details all relevant training provided to staff, and these records shall be kept for a minimum of 2 years.

5.4 Any malfunction of plant or spillage of solvent based materials shall be remedied as soon as possible and process operations altered whilst the necessary work is undertaken.

5.5 Any incident likely to give rise to adverse atmospheric emissions or emissions that may have an impact on the local community shall be notified to the local authority immediately, and the details of incident including remedial action taken recorded in the process log book.

5.6 The operator shall make available on demand and without charge any of the records required to be kept by this permit.

5.7 If there is any intention to change any aspect of the prescribed installation from the description contained in the beginning of this permit, or any other aspect which may affect the substances or concentration or amount of substances being emitted to atmosphere, the operator shall notify the regulator of the proposed changes at least 4 weeks in advance before the changes take place.

6.0 COMPLIANCE WITH SOLVENT EMISSIONS REGULATIONS

6.1 The operator shall identify

- Products or materials that are/contain risk phrased substances/materials R45, R46, R49, R60 and R61

- Products or materials that are / contain Hologenated VOCs with the risk phrase R40

and formulate and implement a timetable to replace, control and limit designated risk phrase materials as soon as possible, as defined and agreed by the Local Authority.

6.2 The operator shall demonstrate compliance with the Solvent Emissions (England & Wales) Regulations 2004 by one of the following methods:

1) By 31st October 2007 achieve the following VOC emission limits expressed as total excluding particulate matter over a 30 minute mean:

Release Point	**Emission Limit**
Waste gases from oxidation plant	50 mg Carbon/Nm3
Waste gases from turbines reciprocating engines or boilers used as abatement plant	150 mg Carbon/Nm3 until 1st April 2013* 50 mg Carbon/Nm3 after 1st April 2013 for drying processes 75 mg Carbon/Nm3 after 1st April 2013 for other processes
Any other waste gases	75 mg Carbon/Nm3

Fugitive Emission Limit Value = 20 % of solvent input
* For abatement plant existing prior to 1 April 2001, the higher contained emission figure may be used until 1st April 2013 if the total emission of the whole installation (fugitive + contained emission) does not exceed the total emission allowed after 1st April 2013 (fugitive + contained emission after 1st April 2013)

Or

2) The use of a Solvent Reduction Scheme to demonstrate the achievement of a Target Emission which is calculated by identifying the total amount of solids used in coating material in a 12 month period (all ingredients other than water and organic solvents should be assumed to form part of the solid coating). The Target Emission is as follows:

Existing Installations at 1/12/98	**Existing Installations at 31/10/05**	**Existing Installations at 31/10/07**
Total Mass of Solid x 1	Total Mass of Solid x 0.56	Total Mass of Solid x 0.37

An Emission Reduction Plan shall be submitted to this Authority which shall include, in particular: Decreases in the average solvent content of the total input and/or increased efficiency in the sue of solids to achieve a reduction of the total emissions from the installation.

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

SUPPLEMENTARY NOTES

These notes do not comprise part of the Permit PPC/ 058 but contain guidance relevant to the Permit.

Inspections and Powers of Entry

Regular inspections will be carried out by officers of the Council (the Local Authority Inspectors) to check and ensure full compliance with the Permit conditions and residual duties. These inspections may be carried out without prior notice.

Under section 108(6) of the Environment Act 1995 authorised Local Authority Inspectors have been granted powers of entry into any premises for the purposes of discharging relevant duties.

Reviews

The Local Authority has a statutory duty to review the permit at least once every 6 years or in the following circumstances set out in regulation 15 of the Pollution Prevention and Control regulations 2000:

a) The pollution from the installation is of such significance that the existing emission limit values for the permit need to be revised or new emission limit values need to be included in the permit
b) Substantial changes in BAT make it possible to reduce emissions from he installation or mobile plant significantly without imposing excessive costs; or
c) Operational safety of the activities carried out in the installation or mobile plant requires other techniques to be used

Health and Safety

This Permit is given in relation to the requirements of the Pollution Prevention and Control (England and Wales) Regulations 2000. It must not be taken to replace any workplace responsibilities the operator has under Health & Safety legislation. Whenever emission limits quoted in this Permit conflict with occupational exposure limits set under the Health and Safety at Work Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

Installation must be operated in order to protect persons at work as well as the environment. In achieving conditions in this Permit the operator must not adopt any course of action that would put at risk the health, safety or welfare of persons at work.

Other Statutory Requirements

This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, building regulations approval, or a waste disposal licence.

This Permit does not authorise a contravention of any other enactment or any order made, granted or issued under any enactment, nor does it authorise a contravention of any rule or breach of any agreement.

The Operator is advised to consult the relevant Planning Department regarding changes that may be required as a result of this Permit (e.g. stack heights) as they may require planning permission.

Transfer of Permits

Where the operator of an installation wishes to transfer, in whole or in part, his permit to another person, the operator and the proposed transferee shall jointly make an application to the regulator to effect the transfer. The permit shall accompany such an application and any fee prescribed in respect of the transfer.

In the case of partial transfer, where the original operator retains part of the permit, the application must make clear who will retain control over the various parts of the installation. The application must include a plan identifying which parts of the site and which activities the operator proposes transferring.

The local authority will then determine whether to allow the transfer within a two-month period, unless the local authority and the applicants agree a longer period. Where the local authority approves the transfer, the transfer will take effect from the date requested by the operator or a date that may be agreed by the local authority and the applicants.

Variation to Permits

Variation to permits may be initiated either by the local authority or the operator, either in response to changes in the operation of an installation or if new conditions are needed to deal with new matters. Variations may be required in response to the following.

- Change of operation of the installation. (The operator shall notify the local authority under Section 16(1) of the Regulations.)
- In response to the findings of a periodic review of conditions.
- In response to the findings of an inspection.
- New or revised sector guidance notes

The operator should apply to the Local Authority in order to vary a permit under regulation 17 of the Regulations. The application must be in writing and, in accordance with Part 1 of Schedule 7 to the Regulations contain:

- The name, address and telephone number of the operator.
- The address of the installation.
- A correspondence address.
- A description of the proposed changes.
- An indication of the variations the operator would like to make.
- Any other information the operator wants the authority take account of.

Substantial Change

A substantial change means, in relation to an installation, a change in operation, which in the opinion of the local authority may have significant negative effects on human beings or the environment.

Where the local authority deems that a proposed variation constitutes a substantial change, the operator will be informed of the process to follow.

Noise

This Permit does not include reference to noise. Statutory noise nuisance is regulated separately under the provisions of Part III of the 1990 Act.

Appeals

An Appeal can be made against the conditions in, or variations to this Permit as per Part IV of the Regulations. Appeals are made to the Planning Inspectorate who acts on behalf of the Secretary of State. Appeals against conditions within a Permit must

be submitted within 6 months of the date of issue of the permit. Appeals against variation notices must be submitted within 2 months of the date of issue of the notice. Appeals should be despatched on the day they are dated and sent to:

The Planning Inspectorate
Environmental Appeals Administration
Room 4/19 – Eagle Wing
Temple Quay House
2 The Square
Temple Quay
BRISTOL
BS1 6PN

HMSO Publications

All HMSO publications can be ordered by telephone on Tel: 0870 600 5522, Fax: 0870 600 5533 or e-mail: book.orders@tso.co.uk

Emission Monitoring Protocol

The documented procedure by which reliable and comparable results are obtained from measurements at source is known as a Protocol.

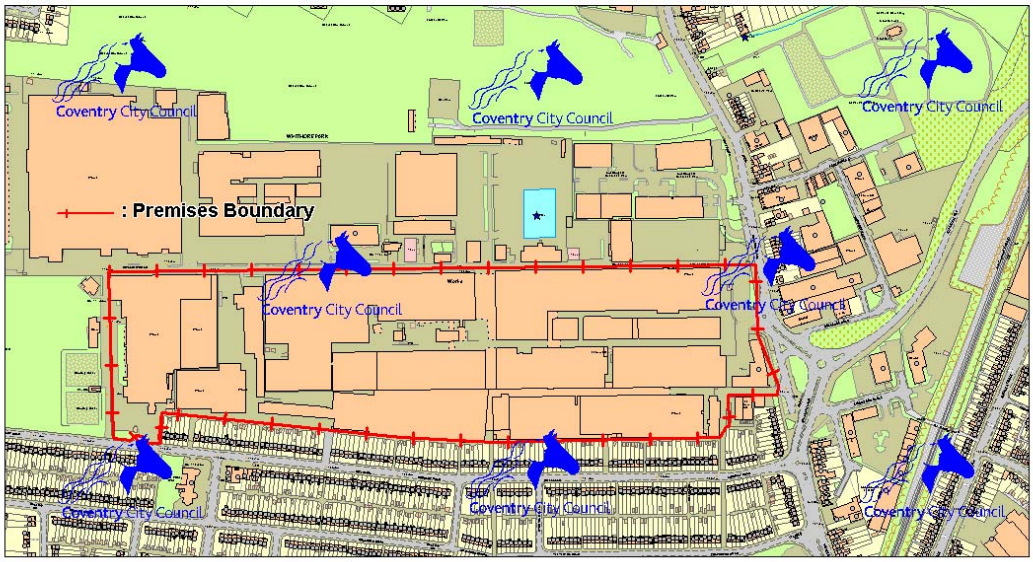
Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

The main components of a Protocol are as follows:-

1. Calibre and quality of the sampling team.
2. A reference measurement method (standard methods may not always be available)
3. A standard methodology setting out:

- health and safety considerations
- pollutants of interest
- plant operating conditions required
- selection and location of sampling position
- sampling characteristics (e.g. isokinetic etc) and techniques
- sampling frequency
- sampling duration
- number of samples
- type (including make and model), condition and suitability of sampling equipment
- required accuracy
- variability of emissions
- analytical methods including laboratory competence and NAMAS accreditation certificate copy for each pollutant of interest
- analytical precision
- procedures to be adopted if standard methods unavailable
- calibration certificate(s) for sampling equipment
- Quality Control and Quality Assurance procedures
- Presentation of results and associated information.

Plan PPC/058/A Premises Boundary of Stadco Coventry Ltd



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