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

DOCUMENT A : PERMIT

PRM Newage Ltd

Reference Number **PPC/181**

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:

PRM Newage Ltd

Whose registered office is:

PRM Newage Ltd
One Eleven
Edmund Street
Birmingham
B3 2HJ

Registered in England No. 05924495

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:

PRM Newage Ltd
Foleshill Enterprise Park
Courtaulds Way
Coventry
CV6 5NX

The permit is subject to the conditions specified in this document consisting of 15 pages and comprising documents A, B and C, 181planA, 181planB, and 181planC

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

Dated ……

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 PG 6/23 – 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:	Angela Hands
Permit Checked By:	Daniel Rowlson

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 (e.g. 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 Permitted Process is shown on the attached diagram, 181planA. The Installation boundary is marked in red on the attached diagram, 181planB. The internal layout of the paint shop and store is shown on the attached diagram, 181planC.

Description of Installation

This permit is for the application of paint to cast iron drop boxes, gear boxes and one to nine tonne axles.

Paint and thinners are delivered in 5 litre drums and stored in a separate lockable and fireproof store in the yard, as marked **X** on **181planC**. Paints and thinners in current use are stored in the area marked **Y** on **181planC**.

The paint is mixed with thinners by using a double diaphragm pump with a fluid filter and paint regulator, set up to use 25 litres of paint. The mixing of paint takes place in the spray booths marked booth 1 and booth 2 on **181planC**.

Pre-cleaning of the cast iron products is conducted at the final stage of assembly. Excess sealant is removed using wipers soaked in an aqueous based degreaser. Some wipers are disposed of as waste and some are cleaned by a contractor and returned for use. The unit is then transported to the paint spraying facility. The finished product is given a final wipe over with solvent impregnated wipes immediately before spray painting is done.

The application of a coating of primer paint to cast iron products occurs by using high volume low pressure (HVLP) electrostatic spray guns in the spraybooths marked booth 1 and booth 2 on 181planB. The spray gun produces an electrostatic field by means of a high voltage electrode within the spray head of the gun. As a result particles of paint, which have been atomised by the spray gun, are carried to the earthed unit by kinetic and electrostatic energy where they adhere, finely distributed to the object being sprayed. The high voltage supply is switched on and off with the trigger of the spray gun. The high voltage characteristics have the effect that if the sprayer gets too close to the unit being sprayed (or to earth) the voltage is automatically reduced therefore preventing any spark being discharged. The paint is pumped to the gun using a pneumatic motor. Efficient filtering and condensate separation systems are installed in the airline. A self-priming diaphragm pump maintains pressure in the paint line during operation.

Drying of liquid residues from the surfaces of the cast iron products occurs in the main factory area adjacent to the spray booths. Fugitive emissions escape into the factory airspace and out through any open doors although most are drawn into the spray booth extraction vent. The units are then labelled and tagged. Wheel nuts are put on and final preparations are made prior to units being transported to the Despatch area.

Table 1

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

Substance	Source	Emission limit / provision	Type of monitoring	Monitoring frequency
Particulate matter	Spray booths	50 mg /Nm3 as 30 minute mean for contained sources	See Section 2	Annually
VOC	Spray booths	Comply with Solvent Emissions Regulations 2004	See Section 6	Solvent Management Plan submitted annually

DOCUMENT B

CONDITIONS

All conditions shall have immediate effect unless stated otherwise.

1.0 EMISSION LIMITS AND CONTROLS

1.1 All releases to air other than condensed water vapour shall be free from persistent visible emissions.

1.2 All emissions to air shall be free from droplets.

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

1.4 The emission limits and provisions shown in Table 1 shall be complied with.

1.5 The reference conditions for emission limits are 273.15K, 101.3kPa, without correction for water vapour content, unless stated otherwise.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

2.1 The operator shall keep a logbook containing records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments.

- The logbook shall be kept on site and made available for the regulator to examine.
- Records shall be kept by the operator for at least two years.

2.2 The operator shall notify the regulator at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. The operator shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.

2.3 The results of non-continuous emission testing should be forwarded to the regulator within 8 weeks of the completion of the sampling.

2.4 In any case where the emission measurement exceeds the emission concentration limit specified in Table 1, the results shall be forwarded to the regulator within 15 days. Where any emission concentration is more than twice the specified emission concentration limit, the regulator shall be informed immediately.

2.5 The regulator must be informed without delay if there is an emission that is likely to have an effect on the local community.

2.6 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions, the operator must:

- Investigate immediately and undertake corrective action
- Adjust the process or activity to minimize those emissions
- Promptly record the events and actions taken

2.7 All appropriate precautions must be taken to minimise emissions during start-up and shutdown.

2.8 The introduction of dilution air to achieve emission concentration limits must not be permitted.

2.9 Dilution air may be added for waste gas cooling or improved dispersion where justified, but this must not be considered when determining the mass concentration of the pollutant in the waste gases.

2.10 Calibration and compliance monitoring shall meet the following requirements as appropriate.

No result shall exceed the emission concentration limits specified in Table 1, except where either:
(a) data is obtained over at least 5 sampling hours in increments of 30-minutes or less; or
(b) at least 20 results are obtained where sampling time increments of more than 30-minute are involved.

In these circumstances the following apply:

(c) no daily mean of all 30-minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down); and
(d) no 30-minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start-up and shut-down).

2.11 Calibration and compliance monitoring for all substances shall be carried out using the following method, or a method which can be demonstrated to be equivalent to that stated: Non-continuous emissions monitoring of particulate matter shall be carried out according to the main procedural provisions of BS ISO 9096:2003, with averages taken over operating periods excluding start-up and shutdown.

Where non-continuous quantitative monitoring is required, the frequency may be varied. Where there is consistent compliance with emission limits, regulators may consider reducing the frequency.

2.12 Consistent compliance shall be demonstrated using the results from at least:

• three or more monitoring exercises within two years; or
• two or more monitoring exercises in one year supported by continuous monitoring.

2.13 Any significant process changes which may have affected the monitored emission shall be taken into account.

2.14 The frequency of testing shall be increased, for example, as part of the commissioning of new or substantially changed activities, or where emission levels are near to or approach the emission concentration limits.

2.15 The operator shall ensure that adequate facilities for sampling are provided on vents or ducts. Sampling points on new plant shall be designed to comply with the British or equivalent standards.

3.0 PROCESS OPERATIONS

3.1 Spraying shall only be carried out in the spraybooths whist the extraction system is in operation.

3.2 The cleaning and testing of any spray guns and other equipment shall only be carried out in spraybooths. This shall only be undertaken whilst the extraction system is in operation and in proper working order. Spray out shall be collected into a separate receptacle and not sprayed directly into the spraybooth.

3.3 All potentially odorous waste materials shall be stored in suitable closed containers.

4.0 MATERIALS HANDLING

4.1 Coatings containing VOC shall be stored in closed storage containers.

4.2 All measures shall be taken to minimise VOC emissions during mixing i.e. the use of covered or closed mixing vessels

4.3 Emissions from the emptying of mixing vessels and transfer of materials shall be adequately contained, preferably by the use of closed container systems. This may be achieved by the use of closed mobile containers, containers with close fitting lids, or, preferably, closed containers with pipeline delivery.

4.4 Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every two years, to identify opportunities for reducing VOC emissions.

4.5 All reasonably practicable efforts shall be made to minimise the amount of residual solvent bearing material left in drums and other containers after use. All organic solvent contaminated waste shall be stored in closed containers.

4.6 Prior to disposal, empty drums and containers contaminated with organic solvent shall be closed to minimise emissions from residues during storage prior to disposal and labelled, so that all who handle them are aware of their contents and hazardous properties.

4.7 Nominally empty drums or drums containing waste contaminated with VOC awaiting disposal, shall be stored in accordance with the requirements for full or new containers

4.8 Prior to disposal, used wipes and other items contaminated with organic solvent, shall be placed in a suitable labelled metal bin, fitted with a self closing lid.

4.9 Suitable organic solvent containment and spillage equipment shall be readily available in organic solvent handling areas.

5.0 CLEANING OPERATIONS

5.1 Applications of cleaning solvents shall be dispensed by piston type dispenser, or similar contained device, when used on wipes.

5.2 When organic solvent is used on wipes

- Pre- impregnated wipes shall be held within an enclosed container prior to use
- Where practicable, no organic solvent cleaning fluids or significantly less volatile organic solvent cleaning fluids shall be used.

5.3 Where practicable, fixed equipment shall be cleaned in situ and such equipment shall, where practicable, be kept enclosed whilst cleaning is carried out.

5.4 Where equipment is cleaned off line (such as screens, plates, drums, rollers and coating trays) cleaning shall be carried out using enclosed cleaning systems, wherever possible.

5.5 Residual coating materials contained in parts of the application equipment shall be removed prior to the cleaning.

6.0 STACKS, DUCTS AND PROCESS VENTS

6.1 The stack shall be 3m above the roof level and achieve a minimum discharge efflux velocity of 15m/s at the final discharge point.

6.2 Stacks or vents shall not be fitted with any restriction at the final openings, such as a plate, cap or cowl.

6.3 Stacks and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme

6.4 A minimum discharge velocity shall be required in order to prevent the discharged plume being affected by aerodynamic downwash.

7.0 SOLVENT MANAGEMENT

7.1 An inventory of the amount of organic solvents used in the activity shall be made six monthly on 1 April and 1 October, and shall detail the total organic solvent use for the previous six months. This shall include details of the quantity and VOC content of the coating purchased, details of the quantity of solvent removed from site as waste and any quantities re-used or recycled. The inventory shall be forwarded to the regulator within 21 days of the above dates.

7.2 An emission reduction plan shall be submitted, and shall be used to define the reference point for emission reductions.

This shall include, in particular:

- Decreases in the average solvent content of the total input, and/or
- Increased efficiency in the use of solids

to achieve a reduction of the total emissions from the installation

7.3 The operator shall use the Solvent Reduction Scheme to demonstrate the achievement of a Target Emission, and shall be calculated annually on 1 April each year. The Target Emission shall be forwarded to the regulator within 21 days of the above date.

7.4 The Target Emission shall be calculated as follows:

Target emission = Total mass of solids x 0.6

The total mass of solids shall be 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).

7.5 Compliance with the solvent 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.

7.6 The flexibility inherent in the reduction scheme compliance route shall not be taken to encourage:

- the replacement of a low or no organic solvent coating system with a conventional high organic solvent coating system; or
- the introduction of such a conventional high organic solvent coating system into a activity; or
- the introduction of such a conventional high organic solvent coating system onto a product where it was not in use before; or

- the introduction of high solids formulations which have no beneficial effect on the product but increase the solids used, except where a reduction in the overall VOC emissions can be demonstrated.

7.7 The regulators shall be given prior notification of any proposal to introduce such systems described in condition 7.6, which shall include reasons why lower organic solvent systems are not considered technically appropriate or practicable

8.0 GENERAL OPERATIONS

5.1 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 from guaranteed suppliers, so that plant breakdowns can be rectified rapidly.

5.2 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.

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

5.4 A high standard of housekeeping shall be maintained.

5.5 Training of all staff with responsibility for operating the process shall include:

- Awareness of their responsibilities under the permit, in a particular how to deal with conditions likely to give rise to VOC emissions, such as in the event of spillage
- Minimise emissions on start up and shut down
- Action to minimise emissions during abnormal conditions

5.6 The operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to the regulator on request.

5.7 A written maintenance programme shall be made available to the regulator with respect to pollution control equipment.

5.8 A record of such maintenance shall be made available for inspection by the regulator.

5.9 Operators shall put in place some form of structured environmental management system (EMS), whether by adopting published standards (ISO 14001 or the EU Eco Management and Audit Scheme [EMAS]) or by setting up an EMS tailored to the nature and size of the particular process.

5.10 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.

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DOCUMENT C

RESIDUAL DUTY

In relation to any aspect of the process not regulated by specific conditions in this permit, then Best Available Techniques shall be used:

For the purposes of the Pollution Prevention and Control (England and Wales) Regulations 2000, "best available techniques" means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where practicable, generally to reduce emissions and the impact on the environment as a whole; and for the purpose of this definition –

a) "available techniques" means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, in the economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator;

b) "best" means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;

c) "techniques" includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

SUPPLEMENTARY NOTES

These notes do not comprise part of the Permit PPC/162 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. Such an application shall be accompanied by the permit 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.

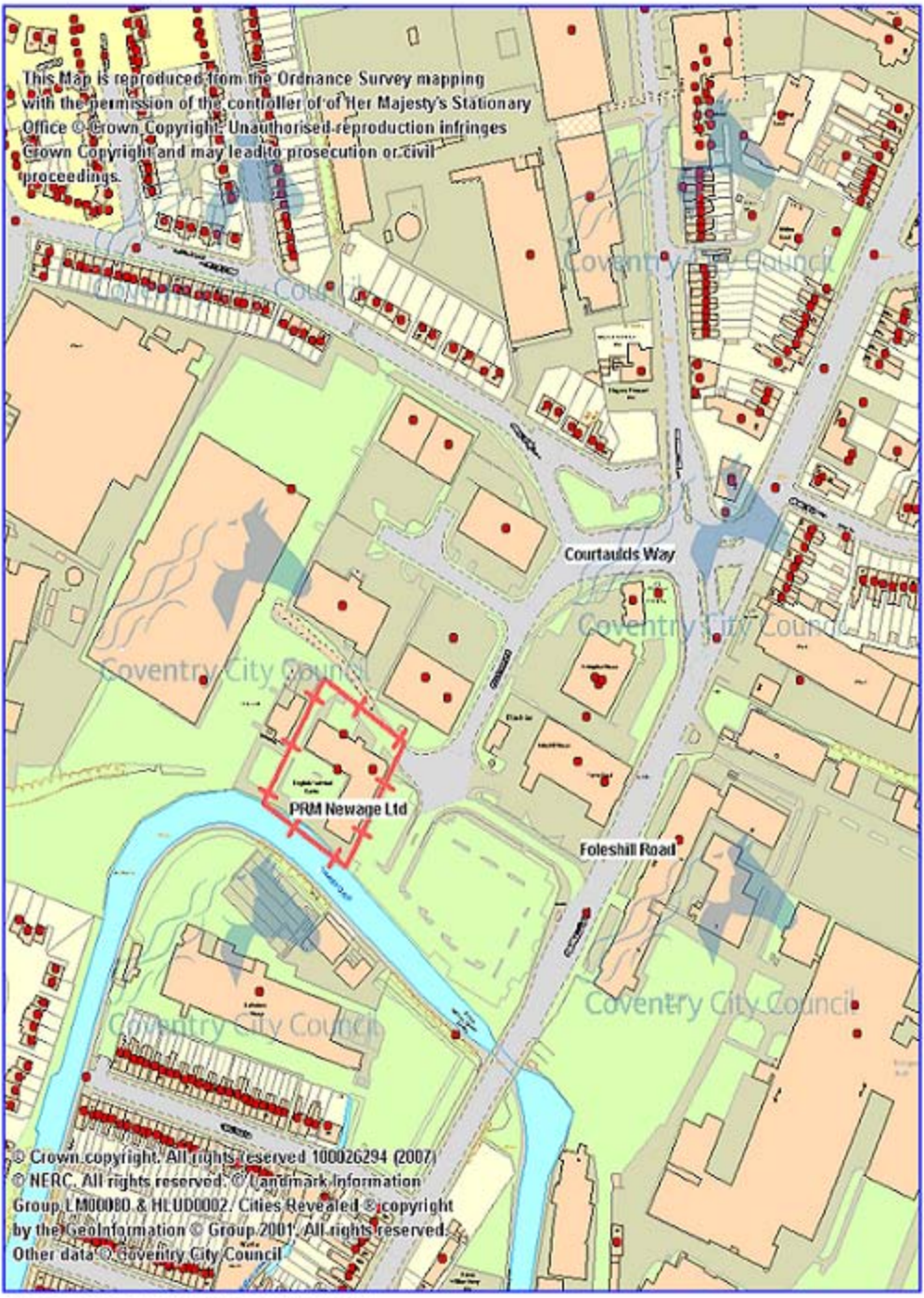
Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

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.

181 PRM Newage Ltd Plan A



City Services Directorate, Environmental Health,
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Broadgate House, Coventry, CV1 1NH
Tel: 0500 834 3333
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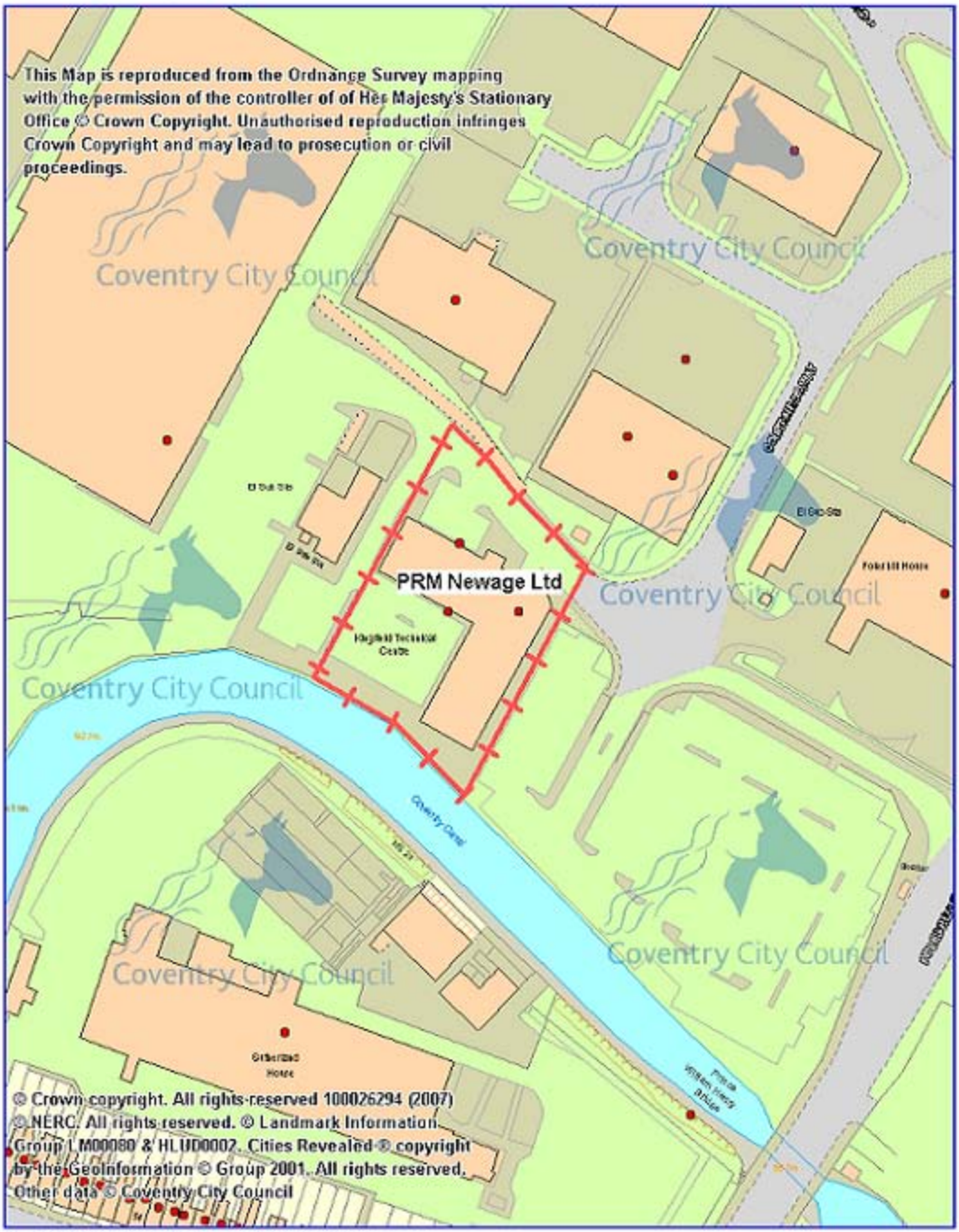
181 PRM Newage Ltd Plan B



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