



MALDON DISTRICT  
COUNCIL

# Environmental Permit

Pollution Prevention and Control Act 1999  
Environmental Permitting (England and Wales) Regulations 2010

Installation address:	Universal Services Beckingham Business Park Tolleshunt Major Maldon Essex CM9 8LZ
Operator:	Colin Albert Rhodes, Susan Jane Rhodes, Stewart Reagan and Elaine Helen Reagan (trading as Universal Services) Universal Services Beckingham Business Park Tolleshunt Major Maldon Essex CM9 8LZ
Permit reference:	MLD/EPR/B/005

**Status log**

Detail	Date	Comment
Application	3 <sup>rd</sup> December 2010	Duly made
Draft Permit	16 <sup>th</sup> March 2011	Minor amendments
Permit	8 <sup>th</sup> April 2011	Issued

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## Introductory Note

*This introductory note does not form part of your Environmental Permit conditions, however it does provide useful information about your obligations under the Environmental Permitting Regulations:*

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I 2010 No.675), ("the EPR") to operate a scheduled installation carrying out an activity, or activities covered by the description in section 7 B(a) of Part 2 to Schedule 1 of the EPR, to the extent authorised by the Permit.

Conditions within this Permit detail Best Available Techniques (BAT), for the management and operation of the installation, to prevent, or where that is not practicable, to reduce emissions.

In determining BAT, the Operator should pay particular attention to relevant sections of the LAPPC Process Guidance note (PG6/45(04)) and draft Process Guidance note (PG6/45(10)), and any other relevant guidance. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Note that the Permit requires the submission of certain information to the Regulator, and in addition, the Regulator has the power to seek further information at any time under Regulation 60 of the EPR Regulations provided that the request is reasonable.

### Public Registers

Information relating to Permits, including the application, is available on public registers in accordance with the EPR. Certain information may be withheld from the public registers where it is commercially confidential, or if it is in the interest of national security to do so.

### Variations to the Permit

The Regulator may vary the Permit in the future, by serving a variation notice on the Operator. Should the Operator want any of the conditions of the Permit to be changed, a formal application must be submitted to the Regulator (the relevant forms are available from the Regulator). The Status Log that forms part of this introductory note will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

### Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another Operator, an application to transfer the Permit has to be made jointly by the existing and proposed Operators. A transfer will not be approved if the Regulator is not satisfied that the proposed Permit holder will be the person having control over the operation of the installation, or will not comply with the conditions of the transferred Permit. In addition, if the Permit authorises the Operator to carry out a specified waste management activity, the transfer will not be approved if the Regulator does not consider the proposed Permit holder to be a 'fit and proper person' as required by the EPR.

### Talking to us

Please quote the permit number if you contact the Regulator about this permit. To give a notification under condition 5.1, the Operator should telephone **01621 875817** or any other number notified in writing by the Regulator for that purpose.

## Environmental Permit



MALDON DISTRICT  
COUNCIL

**Permit Reference Number: MLD/EPR/B/005**

**Maldon District Council** ("the Regulator") in exercise of its powers under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No 675), hereby authorises **Colin Albert Rhodes, Susan Jane Rhodes, Stewart Reagan and Elaine Helen Reagan (trading as Universal Services)** ("the Operator").

to operate an installation at:  
**Universal Services**  
**Beckingham Business Park**  
**Tolleshunt Major**  
**Maldon**  
**Essex**  
**CM9 8LZ**

To the extent authorised by and subject to the conditions of this Permit.

Signed

Dated this day

**8<sup>th</sup> April 2011**

**Shirley Hall**  
**Senior Environmental Health Officer**  
**The Authorised Officer for this purpose**

Environment Services, Maldon District Council, Princes Road, Maldon, Essex CM9 5DL.  
Tel. 01621 875817 Fax. 01621 875899

# Conditions

## 1. General conditions

### 1.1 Permitted activities

1.1.1 The Operator is permitted to carry out the following activities as described in the permit application and in accordance with the conditions contained in this permit:

- Surface cleaning using substances or preparations which because of their content of volatile organic compounds classified as carcinogens, mutagens or toxic to reproduction under Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances are assigned or need to carry one or more of the risk phrases R45, R46, R49, R60 or R61, or halogenated VOCs which are assigned or need to carry the risk phrase R40, Section 7B(a) of part 2 of schedule 1 'SED activities'.

and the following associated activities:

- Powder coating using less than 20 tonnes of coating powder in any 12-month period, and;
- Coating metal and plastic using less than 5 tonnes of VOC in any 12-month period, and;
- Wood coating using less than 5 tonnes of VOC in any 12-month period, and;
- Painting using less than 5 tonnes of VOC in any 12-month period, and;
- The manufacture of timber and wood based products, using less than 1000m<sup>3</sup> timber in any 12-month period

This Permit shall be subject to replacement, variation or amendment as may be considered appropriate by Maldon District Council, at any time, according to the provisions of Regulation 20 of the EPR.

1.1.2 If the Operator proposes to make a change in operation of the installation, he must, at least 14-days before making the change, notify the Regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment, regardless of whether that change constitutes a substantial change.

1.1.3 Under this permit, as substantial change means:

- a). For a small installation\*, a change of the nominal capacity leading to an increase of emissions of VOC of more than 25%. Any change that may have, in the opinion of the competent authority, significant negative effects on human health or the environment is also a substantial change.
- b). For all other installations a change of the nominal capacity leading to an increase of emissions of VOC of more than 10%. Any change that may have, in the opinion of the competent authority, significant negative effects on human health or the environment is also a substantial change.

\* *a small surface cleaning installation using designated risk phrase materials has a solvent consumption of 1 tonne or more and less than 5 tonnes/year*

\* *a small surface cleaning installation using any other VOC has a solvent consumption of 2 tonnes or more and less than 10 tonnes/year*

Following a substantial change, compliance must be re-verified.

1.1.4 Under this permit, the following definitions for materials designated because of their VOC content shall apply:

- a). Until 1 Jun 2015: risk phrase R45, R46, R49, R60, or R61, and;
- b). From 1 Dec 2010: hazard statement H340, H350, H350i, H360D, or H360F

1.1.5 Under this permit, the following definitions for materials designated because of their Halogenated VOC content shall apply:

- a). Until 1 Jun 2015 : risk phrase R40, or from 1 Dec 2010 until 1 Jun 2015, risk phrase R68, and;
- b). From 1 Dec 2010: hazard statements H341 or H351.

## 1.2 Installation

1.2.1 **Colin Albert Rhodes, Susan Jane Rhodes, Stewart Reagan and Elaine Helen Reagan (trading as Universal Services)** produce high quality institutional sports equipment.

Metal raw materials are machined to size and welded together to form sports equipment or component parts of sports equipment such as climbing frames and trampolines. Metal parts are degreased prior to painting or powder coating. Coated items are then assembled and wrapped for dispatch.

The activity regulated by this permit is metal parts degreasing in a Vapasol AMC vapour-degreasing unit. Vapasol AMC is a dichloromethane based volatile organic compound, and is an R40 Risk Phrase material.

Metal items for cleaning are loaded into a metal basket, which is then loaded into the degreasing machine using a mechanical hoist. The degreasing machine is a metal tank containing a sump in which a liquid organic solvent is heated to boiling point. The boiling point is determined by the solvent used and is thermostatically controlled. The boiling solvent forms a layer of solvent vapour above the liquid solvent, the two being separated by a perforated metal platform. The basket of items to be degreased is lowered into the solvent vapour layer and rests on the perforated platform. The solvent vapour encompasses the parts in the basket and oil and grease contamination is removed as the vapour condenses on the metal parts. The condensed solvent runs off the metal and back into the sump, taking the oils and grease with it.

Refrigerated cooling coils near the top of the degreasing unit aim to keep the solvent inside the plant during the cleaning process and when the basket of cleaned metal is removed. An additional roller shutter helps to contain solvent during the cleaning process and when the plant is not in use. Rim extraction at the top of the plant aims to capture any solvent vapour dragged past the cooling coils when the basket of cleaned work is removed. Captured solvent vapour is exhausted to atmosphere 10.5 metres above ground level without abatement. Dirty solvent is periodically removed from the tank for disposal.

1.2.2 The activities authorised by this Permit shall not extend beyond the installation boundary, that being the land shown as edged in red on the site plan MLD/EPR/B/005/01 in schedule 1, and described in the Permit application. The layout of the installation is detailed in site plan MLD/EPR/B/005/02 in schedule 2. The installation comprises:

Building / Area / Activity	Components / notes
Area 1	<p>Degreasing plant, comprising:</p> <ul style="list-style-type: none"> <li>▪ Vapasol AMC vapour degreasing unit with a top surface area of 3500mm x 950mm.</li> <li>▪ Roller shutter top.</li> <li>▪ Chiller unit.</li> <li>▪ Exhaust stack.</li> </ul> <p>Manufacturing area, including:</p> <ul style="list-style-type: none"> <li>▪ Spraybooths, paint ovens, racking and assembly areas.</li> </ul>
Area 2	<p>Manufacturing area, including:</p> <ul style="list-style-type: none"> <li>▪ CNC machining, woodworking and racking.</li> </ul>
Area 3	<p>Manufacturing area, including:</p> <ul style="list-style-type: none"> <li>▪ Lathes, saws, welding and racking.</li> </ul>

Table 1.2.2 (continued)	
Building / Area / Activity	Components / notes
Area 4	Offices.
Area 5	Storage.

1.2.3 Emissions to air from the specified sources in table 1.2.3 shall only arise from the emission points specified in that table.

Table 1.2.3		
Emission point reference	Source	Location of emission point
A	Vapour degreasing plant chimney	10.5 metres above ground level, directly above degreasing plant

1.2.4 Emission point 'A' specified in table 1.2.3 shall meet the following minimum requirements:

- No discharge stack shall be less than 1m above roof level, and;
- No discharge stack shall be less than 10m above ground level or area to which there is general access, and;
- No discharge stack shall be less than 3m above any area to which there is general access, and;
- No discharge stack shall be less than 10m from any opening windows or ventilation air inlets

1.2.5 Emission point 'A' specified in table 1.2.3 shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be used where necessary to increase the efflux velocity of emissions.

### 1.3 Improvement plan

1.3.1 The Operator shall satisfy the conditions referred to in table 1.3.1 by the date specified in that table, and shall send written notification of the completion of each requirements to the Regulator within 14 days of completing each requirement.

Table 1.3.1		
Reference	Description	Compliance date
IC1	The Operator shall control emissions from all vapour degreasing machines under contained conditions as far as technically and economically feasible to safeguard public health and the environment, and shall Limit emissions where the sum of the mass flows of all the discharges of all the compounds causing the designated labelling is greater or equal to 100 g/h, a limit value of 20 mg/Nm <sup>3</sup> for the mass sum of the individual compounds must apply, in accordance with condition 2.3.1.	Within 18 calendar months of the date of this permit
IC2	The Operator shall modify or replace all vapour degreasing machines not meeting the requirements of condition 2.3.1 within the shortest possible time as agreed with the Regulator, in accordance with condition 2.3.2.	Within 24 calendar months of the date of this permit
IC3	The Operator shall, where practicable, carry out cleaning in vapour degreasing machines designed and operated to meet the requirements of condition 2.3.1, and row 1 of table 2.2.1 in condition 2.2.1. If this is not practicable, emissions shall be contained and vented to abatement plant where necessary to meet the requirements of row 2 of table 2.2.1 in condition 2.2.1. Compliance with the relevant emission limits specified in table 2.2.1 of condition 2.2.1 shall be demonstrated at least once every 12 months, in accordance with condition 2.3.3.	Within 24 calendar months of the date of this permit

1.3.2 Where the Operator fails to comply with any requirement by the specified date in table 1.3.1, written notification of such failure shall be sent to the Regulator within 14 days of that date.

1.3.3 Where the operator wishes to implement an alternative method of compliance with the requirements of table 1.3.1, written approval must be sought from the Regulator.

## 2. Operating conditions

### 2.1 Best available techniques

2.1.1 The Installation shall, subject to the conditions of this Permit, be operated using the techniques, and in the manner described in the documentation submitted in the Permit application, or as otherwise agreed in writing by the Regulator in accordance with the conditions of this Permit.

2.1.2 The best available techniques shall be used to prevent, or where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the activity which is not specifically regulated by any condition of this permit.

### 2.2 Emission limits and compliance monitoring

2.2.1 The limits for emissions to air shall be monitored for the parameters and at the monitoring frequency set out in table 2.2.1. The emission limits shall not be exceeded. Suitable monitoring techniques must be agreed with the Regulator in advance and in writing.

Row	Parameter	Emission limit	Monitoring method	Monitoring frequency
1	VOC in waste gases from emission point 'A' where the sum of the mass flows of all the discharges of all the compounds causing the designated labelling is greater or equal to 100 g/h	20 mg/Nm <sub>3</sub>	Manual extractive testing	At least once every 12-months in accordance with condition 2.3.3
2	VOC in waste gases from emission point 'A'	20 mg/Nm <sub>3</sub>	Manual extractive testing	At least once every 12-months in accordance with condition 2.3.3
3	VOC in fugitive emissions	15% of solvent input	Mass balance calculation in accordance with schedule 3	At least once every 12-months in accordance with condition 2.2.6 and schedule 3

Reference conditions for limits are: 273.15K, 101.3kPa, without correction for water vapour content, unless otherwise stated.

2.2.2 All releases to air, other than condensed water vapour, shall be:

- a). Colourless and free from smoke, and;
- b). Free from persistent visible emissions, and;
- c). Free from droplets.

2.2.3 The introduction of dilution air in order to meet emission limits specified in condition 2.2.1, table 2.2.1, is not permitted.

2.2.4 The Operator shall make arrangements for recording the volume of volatile organic compounds (VOC) purchased and used at the installation, and shall retain copies of receipts of the purchase of such materials for a minimum of two years.

2.2.5 The Operator shall make arrangements for recording the volume of waste VOC disposed of from the installation for recycling for re-use, and shall retain copies of consignment notes for the dispatch of such materials for a minimum of two years.

2.2.6 The Operator shall produce an annual report on the VOC consumed in the regulated activity over the previous calendar year, and submit it to the Regulator by the 1<sup>st</sup> March each year. The report shall include but not be limited to:

- a). Details of the VOC inputs and outputs of the activities and/or installation, including fugitive emissions, in accordance with Schedule 3 of this Permit; and,
- b). Results of extractive sampling exercises, and,
- c). A review of cleaning activities using (when due) as required by condition 2.3.17.

- 2.2.7 The Operator shall notify the Regulator at least 7 days before any periodic or non-continuous monitoring exercise to determine compliance with emission limit values, including a provisional date, pollutant(s) to be tested and the methods to be used.
- 2.2.8 For extractive testing in accordance with condition 2.2.1, table 2.2.1, the sampling undertaken shall meet the following requirements:
- a). For batch processes, where the production operation is complete within, 2 hours, then the extractive sampling shall take place over a complete cycle of the activity, **and**;
  - b). For all activities the sampling period shall be sufficient such that at least 3 results are obtained.
- 2.2.9 For extractive testing where the requirements of condition 2.2.8 cannot be met because the batch cycle is not compatible with the time available for sampling, then the data required shall be obtained over a minimum period of 2 hours in total.
- 2.2.10 All testing required by condition 2.2.1, table 2.2.1, shall be undertaken during representative surface cleaning activities.
- 2.2.11 Sampling points on new plant shall be designed to comply with the British or equivalent standards. Where existing stacks or ducts are fitted with facilities for sampling, sampling points shall allow compliance with the sampling standards.
- 2.2.12 Where monitoring is not in accordance with the main procedural requirements of the relevant standard, deviations shall be reported as well as an estimation of the likely error.
- 2.2.13 In the case of any abnormal emissions, malfunction or breakdown leading to abnormal emissions, the Operator shall:
- a). Investigate and undertake remedial action immediately, **and**;
  - b). Adjust or stop the process or activity to minimise those emissions, **and**;
  - c). Promptly record the events and corrective actions taken in the logbook kept in accordance with condition 2.4.1, **and**;
  - d). Notify the Regulator in accordance with condition 5.1, **and**;
  - e). Re-test to demonstrate compliance as soon as possible.
- 2.2.14 In the case of non-compliance causing immediate danger to health, the operation of the activity must be suspended. All of the following criteria shall be taken into account:
- a). The toxicity of the substances being released, **and**;
  - b). The amount released, **and**;
  - c). The location of the installation, **and**;
  - d). The sensitivity of the receptors.
- 2.2.15 The results of manual extractive emission testing shall be forwarded to the Regulator within 8 weeks of completion of the sampling, and retained in the logbook kept in accordance with condition 2.4.1. Particular notes shall be made of any factors that might have affected the monitored emission as well as an estimation of any errors in reported data.

### **2.3 Control techniques**

- 2.3.1 Emissions from all vapour degreasing machines shall be:
- a). Controlled under contained conditions as far as technically and economically feasible to safeguard public health and the environment, **and**;
  - b). Limited, where the sum of the mass flows of all the discharges of all the compounds causing the designated labelling is greater or equal to 100 g/h, a limit value of 20 mg/Nm<sup>3</sup> for the mass sum of the individual compounds must apply.
- 2.3.2 All vapour degreasing machines not meeting the requirements of condition 2.3.1 shall be modified or replaced within the shortest possible time as agreed with the Regulator.

- 2.3.3 Where practicable, cleaning shall be carried out in vapour degreasing machines designed and operated to meet the requirements of condition 2.3.1, and row 1 of table 2.2.1 in condition 2.2.1. If this is not practicable, emissions shall be contained and vented to abatement plant where necessary to meet the requirements of row 2 of table 2.2.1 in condition 2.2.1. Compliance with the relevant emission limits specified in table 2.2.1 of condition 2.2.1 shall be demonstrated at least once every 12 months.
- 2.3.4 Where practicable cleaning fluids that do not contain organic solvent or cleaning fluids with significantly less volatile organic solvents shall be used (with or without the addition of mechanical, chemical or thermal enhancements).  
*Note: HSE guidance should be sought prior to any substitution of existing cleaning fluids.*
- 2.3.5 The Operator shall not introduce any new substances or preparations which because of their content of VOC are assigned Risk Phrases R45, R46, R49, R60 or R61 without prior written consent from the Regulator.
- 2.3.6 The use of substances or preparations which because of their content of VOC become assigned Risk Phrases R45, R46, R49, R60 or R61 shall be replaced as far as possible and within the shortest possible time.  
*NB: Shortest possible time is usually given to be six years following the official classification date of a substance or preparation as a designated Risk Phrase Material.*
- 2.3.7 The bulk storage of organic solvent is not permitted.
- 2.3.8 Organic solvent shall be stored:
- In closed storage containers not exceeding 220 litres in volume, and;
  - In a secure store, and;
  - Within a spillage tray capable of containing 110% of the volume of the largest container in storage.
- 2.3.9 When charging the degreasing plant and when pumping out waste, totally contained emission free transfer systems shall be used. Charging of the bath can be by pump or gravity fed methods. The point at which organic solvent discharges into the degreasing plant shall be where practicable below the liquid level in the sump. If the discharge point is above the liquid level, the plant must be cool before introducing organic solvent. Condensing and ventilation systems must be in operation when transferring organic solvent.
- 2.3.10 To reduce organic solvent losses through air turbulence, degreasers shall be sited away from draughts, shielded if necessary, isolated from hot flames, hot surfaces and welding operations and in a no smoking area.
- 2.3.11 Where an enclosure is retrofitted to an open-topped degreasing vessel the following issues shall be addressed:
- A lid separating the enclosure from the organic solvent tank shall provided, thereby minimising emissions during operation, and;
  - The door separating the enclosure from the external environment shall be interlocked with the ventilation and the sealing lid separating the enclosure from the organic solvent chamber, to ensure that the outer doors are closed and the ventilation is off before the sealing lid can be opened to degrease work.
- 2.3.12 Where possible, work-handling equipment for transporting the components through the degreasing process shall be integral to the machine. The equipment shall be designed to provide the appropriate speed of travel and process dwell times with interlocks to the operation of the lid of the degreasing vessel, enclosure door and ventilation system to minimise disturbance of vapours within the organic solvent chamber during degreasing and transportation of the load. Where it is not possible to have the equipment integral to the degreasing machine the work handling system shall be designed to provide the required process control and interlock facilities.

- 2.3.13 The basket configuration shall be designed to enhance the cleaning efficiency whilst at the same time minimising the potential for retention of organic solvent/ vapours within each load cleaned.
- 2.3.14 The programming and loading of working into vapour degreasing machines shall be controlled, monitored and reviewed to ensure that the number of surface cleaning operations is minimised by ensuring that the basket is loaded to its maximum capacity whilst ensuring that the orientation and packing of the components is optimised to reduce possible retention and drag out of organic solvent.
- 2.3.15 An energy control system shall be fitted to sense the vapour condition and control heat input to meet the requirements of the degreasing process and minimise emissions during non process periods.
- 2.3.16 Where practicable cooling coils shall be fitted to a self contained closed loop chiller unit, which will reduce energy costs and ensure maximum efficiency in organic solvent vapour containment.
- 2.3.17 Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every two years, to identify opportunities for reducing VOC emissions (e.g. cleaning steps that can be eliminated or alternative cleaning methods). The Regulator shall be provided with a report on the conclusions of the review.
- 2.3.18 Oil and grease contamination of parts to be cleaned shall be minimised by:
- a). Spinning-off excess oils or grease prior to use of cleaning organic solvents
  - b). Longer drain times between machining and cleaning of components
  - c). Careful stacking of components prior to cleaning to reduce oil retention.
- 2.3.19 The unloading/loading equipment, which operators shall be trained to use, shall be used for all loads and not just those too heavy or awkward for easy lifting. This will ensure that the correct loading and unloading speed is used every time.
- 2.3.20 For individual degreasing plant whose annual consumption is **more than 1 tonne** per annum of organic solvent or more, a hoist system shall be provided. The hoist shall have a working speed no greater than 3 meters per minute in the vertical plane and 6 meters per minute in the horizontal plane. The jig shall be held in the free board zone to allow evaporation of residual organic solvents. The dwell time within the free board zone shall be sufficient to allow this evaporation to take place. The actual dwell times will depend on the size and shape of the work pieces.
- 2.3.21 When processing is finished, the heaters within the degreasing vessel shall be switched off, the cooling coils and ventilation system shall be run for at least 30 minutes once the heaters have been switched off.
- 2.3.22 Degreasing plant shall be covered when not in use.
- 2.3.23 All reasonably practicable efforts shall be made to minimise the amount of residual organic solvent bearing material left in drums and other containers after use. All organic solvent contaminated waste shall be stored in closed containers.
- 2.3.24 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 that handle them
- 2.3.25 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.

## **2.4 Management**

2.4.1 The Operator shall implement suitable and sufficient management systems in order to provide an effective technique for ensuring that all other pollution prevention and control techniques are delivered reliably and on an integrated basis. This shall include but not be limited to:

- a). Documented procedures for dealing with abnormal emissions or the failure of key arrestment plant in order to minimise any adverse effects;
- b). Documented preventative maintenance schedules (including cleaning), covering all plant, extract filters, equipment and ductwork, whose failure could lead to leakages and/or impact on the environment;
- c). Documented procedures for monitoring emissions.
- d). Effective recording systems for checks made, including the results of all monitoring, inspections and assessments and collectively referred to as 'the Logbook'. The logbook shall:
  - be kept up to date.
  - be made available for inspection by the Regulator at any time.
  - include the time, date, result and name of person undertaking the assessment, and where necessary, the location of the assessment, weather conditions and wind direction.
- e). Contingences for the acquisition of replacement parts or consumables (particularly those subject to continual wear) if such spares and consumables are not held on site, so that plant breakdowns can be rectified rapidly.
- f). Records of breakdowns (to be analysed by the Operator in order to eliminate common failures).

## **2.5 Training**

2.5.1 A suitable, sufficient and documented training system for all relevant staff shall be maintained, including awareness of the Regulatory implications of the Permit, awareness of all operating procedures, awareness of all potential environmental impacts under normal and abnormal circumstances, prevention of accidental emissions and action to be taken when accidental emissions occur, and awareness of the procedures for dealing with a breach of the Permit conditions.

## **3. Records**

3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-

- Be made available for inspection by the Regulator at any reasonable time;
- Be supplied to the Regulator on demand and without charge;
- Be legible;
- Be made as soon as reasonably practicable;
- Indicate any amendments which have been made and shall include the original record wherever possible; and
- Be retained at the Permitted Installation, or other location agreed by the Regulator in writing, for a minimum period of 2 years from the date when the records were made, unless otherwise agreed in writing.

## 4. Reporting

- 4.1 All reports, and written and or oral notifications required by this Permit, and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Regulator using the contact address indicated on page 1 of this Permit.
- 4.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessments carried out in accordance with the conditions of this Permit.
- 4.3 The Operator shall, within 6 months of receipt of written notice from the Regulator, submit to the Regulator a report assessing whether all appropriate preventative measures continue to be taken against pollution, in particular through the application of best available techniques at the Installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.

## 5. Notifications

- 5.1 The Operator shall notify the Regulator **without delay** of:-
- Any emission likely to affect the local community;
  - The failure or breakdown of any key abatement plant;
  - The detection of an emission of any substance, that has caused, is causing, or may cause significant pollution and that exceeds twice the emission limit or criterion in this Permit, specified in relation to the substance;
  - The detection of any fugitive emissions that has caused, is causing or may cause significant pollution, unless the quantity emitted is so trivial that it would be incapable of causing significant pollution;
  - The detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or may cause significant pollution; and
  - Any accident, which has caused, is causing or may cause significant pollution.
- 5.2 The Operator shall give written notification as soon as practicable (and at least 30 days) prior to any of the following:
- Permanent cessation of the operation of part or all of the Permitted Installation;
  - Cessation of operation of all or part of the Permitted Installation for a period likely to exceed 1 year; and
  - Resumption of the operation of part or all of the Permitted Installation after a temporary cessation of activities as above.
- 5.3 The Operator shall notify the following matters to the Regulator in writing within 14 days of their occurrence:
- Any change in the Operator's trading name, registered name or registered office address;
  - Any change to the particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary);
  - Any steps taken by the Operator going into administration, entering into a company voluntary arrangement, being wound up or bankruptcy;
  - Any death of any of the named Operators (where the Operator consists of more than one named individual).

## 6. Interpretations and Explanatory Notes

6.1 In relation to this Permit, the following expressions shall have the following meanings:

"Activity"	An activity listed in Part 2 of Schedule 1 to the EP Regulations which will form part of an EP installation or be a mobile plant
"The EPR / EP Regulation"	Means the Environmental Permitting (England and Wales) Regulations 2010 S.I. 2010 No.675 and words and expressions defined in the EPR shall have the same meanings when used in this Permit save to the extent they are explicitly defined in this Permit.
"Change in Operation"	In relation to an installation or mobile plant, a change in its nature or functioning or an extension which may have consequences for the environment.
"Enforcement notice"	A notice served by a local authority to enforce compliance with the permit conditions or require remediation of any harm following a breach of any condition.
"Installation"	A stationary technical unit where one or more activities listed in Part 2 of Schedule 1 to the EP Regulations are carried out and any other location on the same site where any other directly-associated activities are carried out, and any activities that are technically linked. The terms 'regulated facility' and 'installation' are, in effect, interchangeable for A(2) and B activities.
"Operator"	The person who has control over the operation of the installation/regulated facility (EP Regulation 7).
"Permit"	A permit granted under EP Regulation 13 by a local authority allowing the operation of an installation subject to certain conditions.
"Pollution"	Any emission as a result of human activity which may be harmful to human health or the quality of the environment, cause offence to any human senses, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment (EP Regulation 2(1)).
"Revocation notice"	A notice served by the Regulator under EP regulation 22 revoking all or part of a permit.
"Permitted Installation"	Means the activities and the limits to those activities described in this Permit.
"Monitoring"	Includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.
"MCERTS"	Means the Environment Agency's Monitoring Certification Scheme.
"Fugitive Emission"	Means an emission to air or water (including sewer) from the Permitted installation that is not controlled by an emission limit imposed by a condition of this Permit.
"Regulator"	Means any officer of Maldon District Council who is authorised under Section 108(1) of the Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(1) of that Act.
"Best Available Techniques (BAT)"	<p>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 that is not practical, generally to reduce emissions and the impact on the environment as a whole.</p> <p>For those purposes:</p> <p>"Available techniques" means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under 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;</p> <p>"Best" means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;</p> <p>"Techniques" includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. Schedule 2 of the Regulations shall have effect in relation to the determination of best available techniques.</p>

6.2 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the document with the most recent publication date shall be taken to be the most appropriate document to be used.

6.3 Any person who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date of the Permit).

Appeals relating to installations in England should be received by the Secretary of State for Environment, Food & Rural Affairs. The address is as follows;

The Planning Inspectorate, Environment Team, Major and Specialist Casework,  
Room, 4/04 – Kite Wing, Temple Quay House, 2 The Square, Temple Quay, Bristol,  
BS1 1PN


The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included;

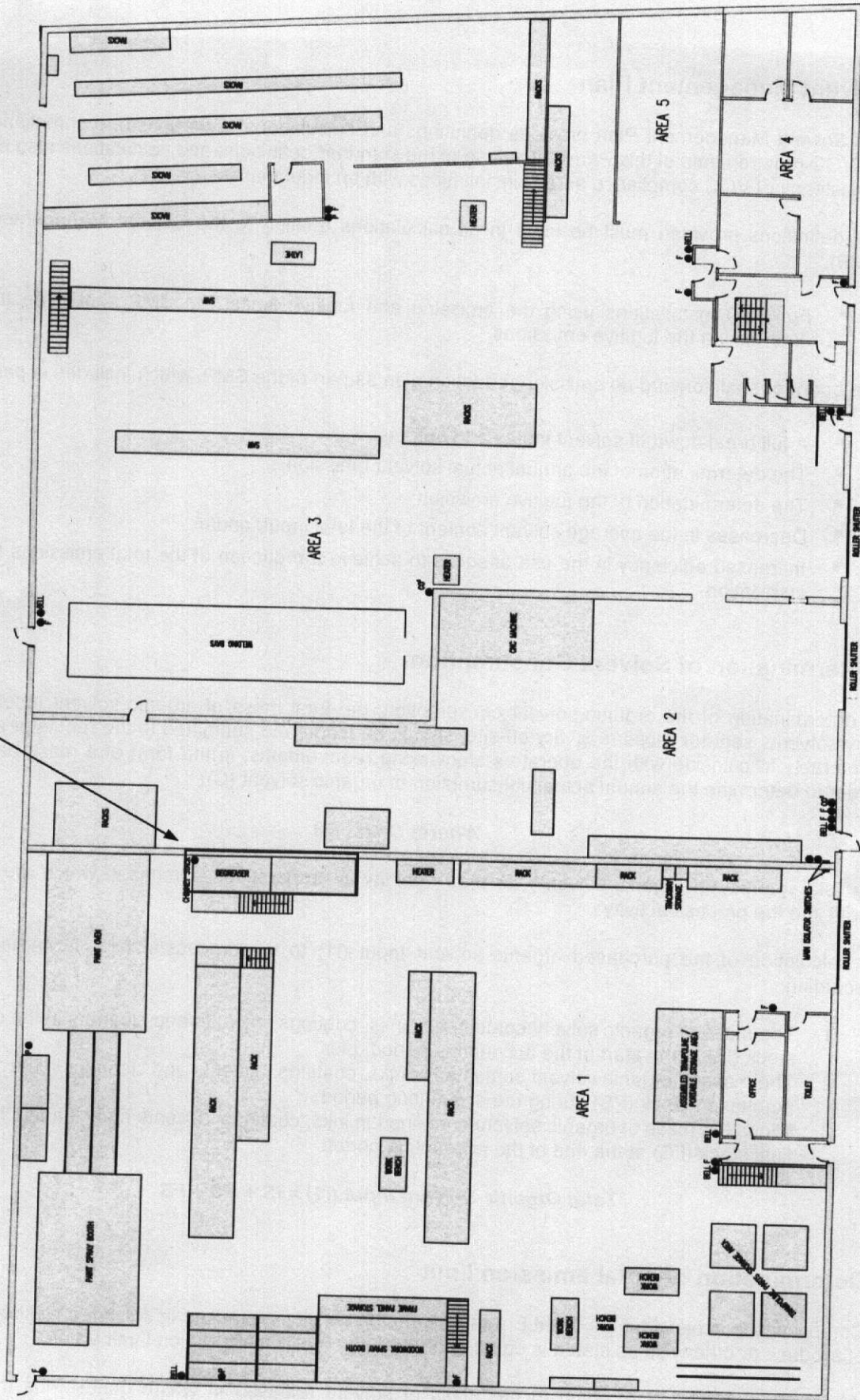
- a) A statement of the ground of appeal;
- b) A copy of any relevant application;
- c) A copy of any relevant Permit;
- d) A copy of any relevant correspondence between the person making the appeal (“the appellant”) and the Council;
- e) A statement indicating whether the appellant wishes the appeal to be dealt with.
  - By a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
  - By both parties sending the Secretary of State written statements of their case (and having the opportunity to comment upon one another’s statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this has been done.

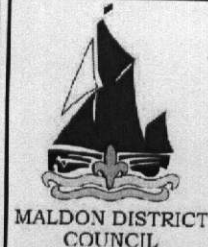
- An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.



 MALDON DISTRICT COUNCIL	Site	Universal Services		
	Project	Permit application		
	Drawing	Schedule 1	No.	MLD/EPR/B/005/01
	Date	15 <sup>th</sup> February 2011	Scale	Not to scale



Emission point 'A'



Site	Universal Services		
Project	Permit application		
Drawing	Schedule 2	No.	MLD/EPR/B/005/02
Date	15 <sup>th</sup> February 2011	Scale	Not to scale

## Solvent Management Plan

The Solvent Management Plan provides definitions and calculations to demonstrate compliance with the VOC requirements of this Permit. The use of the standard definitions and calculations also ensures consistency of VOC compliance across installations with an industrial sector.

The definitions provided must be used in all calculations relating to the Solvent Management Plan (SMP).

- For SED installations using the emission and fugitive limits, the SMP should be used for determining the fugitive emissions.

The operator shall forward an emission reduction plan as part of the SMP, which includes in particular:

- A full breakdown of solvent inputs and outputs
- The determination of the annual actual solvent emission
- The determination of the fugitive emission
- 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.

## Determination of Solvent Consumption

A determination of the organic solvent consumption, the total mass of organic solvent inputs minus any solvents sent for reuse/recovery off-site, should be made and submitted to the regulator annually, preferably to coincide with the operators stocktaking requirements, in the form of a mass balance in order to determine the annual actual consumption of organic solvent (C):

$$\text{Where: } C = I1 - O8$$

I1 Total quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity.

A calculation of the purchased organic solvent input (I1) to the process/activity, is carried out by recording:

1. The mass of organic solvent contained in inks, coatings, diluents and cleaners in the initial stock (IS) at the start of the accounting period; plus
2. The mass of organic solvent contained in inks, coatings, diluents and cleaners in the purchased stock (PS) during the accounting period.
3. Minus the mass of organic solvent contained in inks, coatings, diluents and cleaners in the final stock (FS) at the end of the accounting period.

$$\text{Total Organic Solvent Input (I1)} = IS + PS - FS$$

## Determination of Total emission limit

Compliance is achieved if the Total Emission from the activity expressed in solvent emissions per unit of product, or otherwise as stated is equal to or less than the Total Emission Limit Value,

Where Total Emission is equal to the mass of solvent released in waste gases Plus the fugitive emissions determined above

$$\text{Total Emission} = O1 + \text{Fugitive (See above)}$$

## Determination of Fugitive VOC Emissions

To demonstrate compliance with fugitive emission values in Section 2 the operator must determine the fugitive emissions (F) from the installation using the following:

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

or

$$F = O_2 + O_3 + O_4 + O_9$$

This quantity can be determined by direct measurement of the quantities. Alternatively, an equivalent calculation can be made by other means, for instance by using the capture efficiency of the process.

The Fugitive Emission value as a percentage of the Solvent Input (I) is determined by

$$\text{Fugitive Emission Value} = 100 \times F/I$$

Where the Solvent Input (I) =  $I_1 + I_2$  (determined as part of the Solvent Management Plan)

Fugitive emission values must be determined for each installation, once completed, it need not be repeated until the equipment is modified.

### Definitions:

The following definitions provide a framework for the mass balance calculations used in determining compliance.

Inputs of Organic Solvent in the time frame over which the mass balance is being calculated (I)

- $I_1$  The quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity (including organic solvents used in the cleaning of equipment, but not those used for the cleaning of the products).
  - $I_2$  The quantity of organic solvents or their quantity in preparations recovered and reused as solvent input into the process/activity. (The recycled solvent is counted every time it is used to carry out the activity.)
- Outputs of Organic Solvents in the time frame over which the mass balance is being calculated (O)
- $O_1$  Emissions in waste gases.
  - $O_2$  Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating  $O_5$ .
  - $O_3$  The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.
  - $O_4$  Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.
  - $O_5$  Organic solvents and/or organic compounds lost due to chemical or physical reactions. (Including for example those which are destroyed, e.g. by thermal oxidation or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under  $O_6$ ,  $O_7$  or  $O_8$ ).
  - $O_6$  Organic solvents contained in collected waste.
  - $O_7$  Organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially valuable product.

